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THE EFFECTS OF INTERESTS AND INSTITUTIONAL INFLUENCES ON ORGANIZATIONAL ADOPTIONS OVER TIME AND ACROSS PRACTICES

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THE EFFECTS OF INTERESTS AND INSTITUTIONAL INFLUENCES ON ORGANIZATIONAL ADOPTIONS OVER TIME AND ACROSS PRACTICES

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Dedication

This dissertation is dedicated to my beloved wife, Belinda Lee Ming Tan, who has supported me throughout this endeavor with kindness, patience, and love. And, to my mother, Bee Geok Tan, who never questioned my decisions and always supported my every action. And to my little boy, Cayden Shao Han Chng, who just cracks me up.

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The purpose of my dissertation is to examine the effects of interests and carriers of institutional influences on the adoption of three organizational practices that have become varyingly diffused and socially accepted over time. Drawing on theories of agency, power, social networks, and institutions, I argue that the effects of actors' interests and carriers of institutional influences on adoption will be moderated by evolving degrees of social acceptance of a practice. This is because as social acceptance for a practice changes over time, it will not only influence actors' interests and their ability to enact them but also determine the effectiveness of different carriers of social influences, and consequently, determine how these factors will affect adoption. For actors' interests, I examine the effects of managerial power, managerial incentives, and institutional shareholders' influence on adoption over time. For carriers of institutional influences, I examine the effects of social ties and prestigious endorsement on adoption over time. To test my hypotheses, I examine the adoptions of tender offer takeovers,

poison pill takeover defenses, and executive stock option repricing using separate samples of companies listed on the *Fortune 500 Largest U.S. Industrials* (F500) between 1980 and 2004. I collect longitudinal data and conduct event history analysis to test my hypotheses. The results of this study offer some support for changing effects of actors' interests and carriers of institutional influences on adoption as the degree of social acceptance for a practice evolves. In sum, this study provides a more nuanced understanding of the relative roles of interests and institutional influences on adoption as the social environment changes.

Table of Contents

List of Tables

List of Figures

CHAPTER ONE: PURPOSE, KEY DEFINITIONS, AND CONTRIBUTIONS

The adoption and progressive diffusion of practices across a population of organizations have garnered much attention in organizational research. Scholars have been particularly interested in understanding the determinants of adoption because of their implications on organizational and societal change. Within an organization, adoptions represent an organization's ability to change and adapt and has important effects on its functioning and survival. Within a population, aggregate adoptions represent important changes within a social system, highlighting how social norms and institutions are created, maintained, and transformed. The importance of organizational adoption has led researchers to develop several productive streams of research. These include studies that emphasize efficiency and adaptation (Lawrence & Lorsch, 1967a, b; Rosner, 1968; Williamson, 1975; Woodward, 1965), organizational power and politics (Hickson, Hinings, Lee, Schneck, & Pennings, 1971; Perrow, 1970, 1972; Pfeffer & Salancik, 1978), and the isomorphic processes of institutions (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Scott, 2001; Strang & Soule, 1998).

However, an unfortunate outcome of such broad interest is that explanations for the adoption and diffusion of practices are as varied as the perspectives that exist in the field of organizational theory (Strang & Soule, 1998; Tolbert & Zucker, 1983, 1996). Key assertions made under the different perspectives are often fragmented and seldom integrated. In particular, researchers have debated over the relative role of instrumental, strategic choice of organizational actors, on one hand, and the social influence of institutions, on the other (Pfeffer, 1997; Scott, 2001). Persistent debates about this issue have made the accumulation of knowledge on adoption difficult (Scott, 1998, 2001;

Strang & Soule, 1998; Tolbert & Zucker, 1996). To improve our understanding of how organizations may adapt and change, researchers have called for more comprehensive, integrative, and dynamic models of organizational adoption (Strang & Soule, 1998; Tolbert & Zucker, 1996).

Recently, researchers have started to integrate the different theoretical perspectives in order to provide a better understanding of how organizational actors may or may not act to further their interests in the face of social and institutional pressures (Barley & Tolbert, 1997; Giddens, 1979; Ingram & Clay, 2000; Oliver, 1991; Scott, 1995; Tolbert & Zucker, 1996). In particular, Tolbert and Zucker (1996) propose that potential integration of the role of interests, institutions, and efficiency concerns in adoption may be found in the careful conceptualization of the processes by which practices diffuse and become progressively institutionalized (Barley & Tolbert, 1997; Dacin, Goodstein, & Scott, 2002; Scott, 2001). Emphasizing that institutions exist both as a property as well as a process (DiMaggio & Powell, 1983; Zucker, 1977), Tolbert and Zucker (1996) observed that practices can become varyingly diffused and institutionalized as the result of the actions taken by social actors (Barley & Tolbert, 1997; Giddens, 1979). Further, as institutional conditions "change in character and potency over time" (Dacin et al., 2002, p.45), they will drive and shape the actions of social actors (Meyer, Ramirez, & Soysal, 1992; Tolbert & Zucker, 1983; Westphal & Zajac, 1994). Tolbert and Zucker (1983; 1996) proposed the *process of institutionalization* to explain the relative role of interests, institutions, and efficiency concerns on adoption. They argued that interests and efficiency concerns will predict early adoptions of a practice. However, as the practice becomes progressively institutionalized, the effects of interests and efficiency concerns on adoption will decrease. At the same time, institutional carriers of social norms and legitimacy will

become more important determinants of adoption. However, if a practice fails to become institutionalized, then interest and efficiency concerns will continue to predict late adoptions.

This temporal reconciliation of the role of interests, institutions, and efficiency concerns in organizational adoption has received mixed support in prior studies on the adoption of civil service reforms (Knoke, 1982; Tolbert & Zucker, 1983), multidivisional (M-form) organization structure (Fligstein, 1985), matrix management (Burns & Wholey, 1993), CEO long-term incentive plans (Westphal & Zajac, 1994), total quality management (TQM) (Young, Charns, & Shortell, 2001), curricula reforms (Kraatz & Zajac, 1996), and organizational downsizing (Ahmadjian & Robinson, 2001; Budros, 2004). For example, in studies that focused on contexts that are argued to have become institutionalized (Tolbert & Zucker, 1983; Westphal & Zajac, 1994), researchers have observed that the effects of interests and efficiency concerns on adoption decrease over time. However, these studies do not explicitly examine the effects of institutional factors on adoption over time. Further, contrary to Tolbert and Zucker's (1983, 1996) assertion that interests and efficiency concerns are not likely to influence adoptions once a practice has become institutionalized, Palmer and his colleagues (1993) found that several economic and political factors remain highly predictive of multidivisional form (M-form) adoptions, even in the late 1960s when the practice has become institutionalized. Also, Kraatz and Zajac (1996) found that the effects of local market conditions on college curricula reforms persist over time. In other studies that have examined the effect of institutional influences on adoption over time, Burns and Wholey (1993) observed that institutional isomorphism did not increase over time in matrix management adoption. Also, Budros (2004) observed that form prevalence, an important institutional indicator of isomorphism (Hannan & Freeman, 1977), was influential in the adoption of

downsizing in *both* early and late stages of the diffusion process. One reason for these inconsistent effects of interests, institutions, and efficiency concerns on adoption may be due to the fact that many practices do not become either fully institutionalized or not. Instead, they tend to acquire varying degrees of social acceptance or appropriateness over time without becoming necessary, legitimating, or taken-for-granted. Because these practices acquire varying degrees of social acceptance over time, the effects of interests, institutions, and efficiency concerns on adoption are likely to correspondingly change over time. In these situations, how actors' interests and carriers of institutional influences will continue to affect adoption as social attitude changes remain unclear in current literature.

PURPOSE OF RESEARCH

The purpose of my dissertation is to examine how the effects of different organizational actors' interests and carriers of institutional influences on adoption will change over time for three practices that have become varyingly diffused and socially accepted. My central proposition argues that the effects of different actors' interests and different carriers of institutional influences on adoption will change over time depending on how the degree of social acceptance for a practice evolves. This is because as the degree of social acceptance for a practice changes, it will have two important moderating effects. First, it will influence actors' interests and their ability to enact these interests. Second, it will also determine the effectiveness of different carriers of social influence. Specifically, I investigate the following determinants of adoption of tender offer takeovers, poison pills takeover defense, and executive stock option repricing.

(1) Interests – To uncover the effects of interests on adoption over time, it is important to identify and recognize the interests of key organizational actors (Strang & Soule, 1998). In organizational research, the interests of top managers, shareholders, and

employees have featured prominently in prior studies (e.g., Baron, Dobbin, & Jennings, 1986; Davis & Thompson, 1994; Jensen & Meckling, 1976). In this study, I focus on the competing interests that may exist between top managers and shareholders. This tension is well articulated in the literature on agency theory (Fama & Jensen, 1983; Jensen & Meckling, 1976) as well as theories of power and politics (Perrow, 1970, 1972). In this study, I will focus on the interests and power of top managers, specifically the chief executive officer (CEO), and key shareholders, specifically institutional shareholders. I explore in this study the advocacy for and resistance to adoption that top managers' and institutional shareholders' interests may present over time as the degree of social acceptance of a practice evolves. Given my focus on potential competing interests between organizational actors, I am not examining the interests of employees in this study. This is because the interests of employees, with regards to the three organizational practices, are not clearly articulated a-priori. Further, employees have limited ability to influence the adoption of the three practices that I am studying (i.e., tender offer takeovers, poison pills takeover defense, and executive stock option repricing).

(2) Carriers of Institutional Influences – In the study of institutions, Scott (2001; 2003) has highlighted the importance of identifying and investigating the effects of different institutional carriers of social norms and legitimacy on organizational actions. In this study, I am interested in the relational and symbolic carriers of social influences among organizations (Scott, 2001, 2003). Specifically, I investigate the effects of relational carriers of social influence, represented by social ties in board interlock networks; as well as symbolic carriers, represented by prestigious endorsement. I emphasize these institutional carriers because they are generally recognized as key carriers of societal norms and legitimacy (e.g., Burns & Wholey, 1993; Castellucci & Haunschild, 2004; Davis, 1991). While normative influences carried by professionals

and their associations and coercive pressures carried by governments and regulatory agencies have featured in prior research, I have not theorized or directly examined their effects in this study. This is because the role of professionals and their associations on adoption tend to apply to certain context-specific practices. For example, human resource professionals are found to influence the adoption of personnel practices (Dobbin, Edelman, Meyer, Scott, & Swidler, 1988), while hospital accreditation bodies are likely to influence the adoption of new hospital services (D'Aunno, Succi, & Alexander, 2000). While finance professionals are likely to influence acquisition activities (Fligstein, 1990), how they will do so is not clear. As such, their influences are difficult to measure accurately and their effects often cannot be directly examined. Prior studies have often inferred the normative influence of professionals from the correspondence between increasing numbers of professionals in a field and the increasing prevalence of a practice. Given that the role of professionals in the adoption of the practices examined in this study is not clear and difficult to measure correctly, the normative influence of professionals will not be examined in this study. In the case of coercive isomorphism, Tolbert and Zucker (1996) observed that arguments of institutional coercion are often confounded with arguments of power and dependence (e.g., Perrow, 1972; Pfeffer & Salancik, 1978). In particular, the social pressure exerted by the popular media is often highly correlated with the coercive pressures exerted by regulatory agencies (Deephouse, 1996). This obscures the unique theoretical ideas of interests and institutions. Hence, I do not examine the coercive pressures of regulatory agencies.

In the next section, I define the key terms used throughout this study. Wherever possible, I offer formal definitions of these key terms. However, several terms in my study are fairly general, and while they are commonly used in organizational research,

they are seldom formally defined. For these terms, I define them and provide explanations on how I will use them in this study.

DEFINITIONS OF KEY TERMS

Organizational Practice. The term *organizational practice* is used widely in organizational research and refers to any behavior, strategy, technology, or structure that an organization may adopt or undertake (Strang & Soule, 1998). Examples of organizational practices will include diversification strategy (Fligstein, 1991; Palmer & Barber, 2001), matrix management structure (Burns & Wholey, 1993), acquisition strategy (Haunschild, 1993, 1994), joint-venture and strategic alliance (Gulati, 1995; Stuart, 1998), corporate restructuring or downsizing (Ahmadjian & Robinson, 2001; Budros, 2004; McKinley, Zhao, & Rust, 2000), and total quality management practices (Westphal, Gulati, & Shortell, 1997; Young et al., 2001). They include practices that may be adopted only once (e.g., M-form and poison pills) as well as those that may be adopted multiple times (e.g., corporate acquisitions and strategic alliances).

In this study, I use the term *organizational practices* to refer to high-level organizational strategies or practices. The decisions to adopt these practices are made by an organization's top decision-makers, including the top management team and/or the board of directors. In this study, I select three organizational practices that have become varyingly diffused and socially accepted across the population of the largest U.S. companies. Specifically, the three practices are: (1) tender offer takeovers; (2) poison pills takeover defense; and (3) executive stock option repricing. In the following paragraph, I briefly explain each practice. A more detailed description of the practices and their evolution over time will be presented in Chapter Three.

A tender offer takeover is a public offer by an acquiring firm to shareholders of a target company to purchase a controlling percentage of the target's shares at a premium

over the current market price for a limited period of time (Fowler and Schmidt, 1988; Securities Exchange Commission, 2004). It represents an unsolicited and unfriendly attempt to acquire another company. Poison pills, or shareholder rights plans, are contingent securities issued by a company's board of directors to their shareholders that will substantively increase the cost of acquisition should the company become a target of hostile takeovers. They are designed to prevent unsolicited, hostile takeover attempts (Davis, 1991; Mallette & Fowler, 1992). Executive stock option repricing occurs when the board of directors elects to either adjust the "exercise" price of an executive's existing options and/or cancel existing options and reissue new options on more favorable terms, often in response to a steep decline in stock prices (Chance, Kumar, & Todd, 2000; Pollock, Fischer, & Wade, 2002). They represent compensation strategies to align managerial incentives and retain executives.

Interests. The term *interest* is used frequently in organizational studies but seldom formally defined. It is generally used to refer to a regard for one's self-interests and can be applied to individuals as well as collectives. The types of interests examined in prior studies include the individual interests of the top corporate executives (e.g. Boeker, 1992; Haleblian & Finkelstein, 1993; Wade, O'Reilly, & Chandratat, 1990; Westphal & Zajac, 1994), as well as the collective interests of internal and external stakeholders such as employees, shareholders, professionals, governmental agencies, as well as other public interest groups (e.g., Baron et al., 1986; Dobbin et al., 1988; Rao & Sivakumar, 1999). The use of the term also often includes an ability to influence or enact one's self-interest (DiMaggio, 1988; Scott, 2001).

In my study, I use the term *interests* to refer to both a regard for one's self-interests as well as the ability to influence or enact these interests. I focus on the interests of two important organizational actors, namely top executives, specifically the CEO; as

well as shareholders, specifically institutional shareholders. Consistent with concepts of managerial interests presented in agency theory (Fama & Jensen, 1983; Jensen & Meckling, 1976) and theory of "managerialism" (Berle & Means, 1932; Davis, 1991; Williamson, 1964), top managers' interests include preferences for employment security as well as personal wealth and prestige (Amihud & Lev, 1981; Baumol, 1959). The interests of shareholders are consistent with the notion of relatively short-term shareholder wealth maximization frequently discussed in both economic and financial literatures (Fama & Jensen, 1983; Jensen & Meckling, 1976).

Institutional Carriers. In this study, the term *institutional carriers* refers to socio-structural and cultural mechanisms that transmit social norms and legitimacy that enable as well as constrain organizational actions (Scott, 2001, 2003; Strang & Meyer, 1993; Strang & Soule, 1998). As Scott (2001, p.77; 2003) explained, institutions are embedded in various types of "repositories or carriers" (Jepperson, 1991). These carriers significantly influence the nature of institutional pressures and consequently, affect the behaviors of social actors. Institutional carriers can be classified into four types: symbolic systems, relational systems, routines, and artifacts (Scott, 2001, 2003). In this study, I focus on relational and symbolic carriers that facilitate the transmission of social norms and influences across organizations (Scott, 2001, 2003). Specifically, I investigate the influence of relational carrier, represented by social ties in board interlocks network; and symbolic carrier, represented by prestigious endorsement (DiMaggio & Powell, 1983; Scott, 2001; Strang & Meyer, 1993; Strang & Soule, 1998).

Organizational Adoption. Rogers (2003, p. 21) defines adoption as a "decision to make full use of an innovation as the best course of action available". In this study, I focus on the adoption of three organizational practices. While these practices may be adopted either once only (e.g., poison pills) or multiple times (e.g., tender offer takeovers

and executive stock option repricing), *organizational adoption*, in this study, will refer to the first decision to use a practice by a focal firm within the period of observation. This is because I am primarily interested in the determinants that cause an organization to make a distinct transition from one state (i.e., non-adopter) into another (i.e., adopter). This transition is best represented by the first decision to adopt a practice. After an organization has adopted the practice, subsequent re-adoptions by the organization do not represent such a distinct transition of states and are therefore not included.

Degree of Social Acceptance. In this study, the term *degree of social acceptance* refers to the level of general social consensus among key stakeholders (including managers, shareholders, and the general business community) that a practice is seen as an appropriate organizational behavior. The degree of social acceptance for a practice can change over time, either increasing (i.e., becoming more socially accepted), decreasing (i.e., becoming less socially accepted or more socially unacceptable), or remain relatively stable (i.e., no change in social acceptance). A practice that has become socially accepted is widely regarded as an appropriate organizational action. Its adoption will not be resisted by key stakeholders. However, high social acceptance does not need to imply that a practice is necessary, taken-for-granted, or even legitimating; conditions that are more closely relate to the concept of becoming institutionalized (Tolbert & Zucker, 1983, 1996). When a practice becomes less socially accepted (or, more socially unacceptable) over time, then it becomes widely regarded as an inappropriate organizational action and is likely to be resisted by key stakeholders. As for a practice whose social acceptance remains unchanged, key stakeholders' attitude regarding its appropriateness (or inappropriateness) remains relatively stable over time.

BOUNDARY CONDITIONS

There are three boundary conditions in this study. First, this research focuses exclusively on the adoption behaviors of large U.S. companies listed on the *Fortune 500 Largest U.S. Industrials* (F500). These companies are the largest in terms of their sales revenue and many of them operate in several different industries and have business activities in multiple countries. Being the largest and most prominent companies in the U.S., these companies are often under intense scrutiny by various stakeholder groups including regulatory agencies, professional associations, shareholders, customers, employees, mass media, and other private and public interest groups. As such, researchers have argued that these large companies are often under greater social pressures than small and medium companies (Goodstein, 1994; Hirsch, 1986; Ingram & Simons, 1995; Leblebici, Salancik, Copay, & King, 1991; Palmer & Barber, 2001; Scott, 1998). At the same time, these large companies tend to have tremendous resources that may make them less dependent on external constituents and even allow them to influence their external environments (DiMaggio & Powell, 1983; Oliver, 1991; Pfeffer & Salancik, 1978; Thompson, 1967). Further, researchers have argued that larger companies are likely to exhibit greater "managerialism" (Berle & Means, 1932; Herman, 1981) and more agency problems (Fama & Jensen, 1983; Jensen & Meckling, 1976). Top executives in these large companies are usually very powerful because of the companies' huge resource base and the degree of managerial discretion they enjoy as a result of the separation of control and ownership (Berle & Means, 1932; Fama & Jensen, 1983; Jensen & Meckling, 1976). Taken together, the proposed effects of actors' interests and carriers of institutional influences on adoption over time may not generalize to small and medium-sized companies. However, F500 companies do exhibit a lot of variance in terms of size, industries, markets, and performance. This variability allows

me to examine the important impacts of different determinants of adoption for the population of the largest U.S. companies.

Second, I do not focus on any single industry or organizational field. As mentioned earlier, many companies in the F500 operate in multiple industries. As such, the concept of social influences invoked herein relates to a broader conceptualization than would normally be understood within an organizational field or industry (DiMaggio & Powell, 1983). However, companies listed on the F500 are "similar" in many aspects. They are regulated by the same governmental agencies like the Security and Exchange Commission (SEC), scrutinized by the same financial institutions (Rao & Sivakumar, 1999) and popular-business media like *Fortune*, *Forbes*, and *Business Week*, and typically exhibit similar governance and organizational structures (e.g., Palmer, Barber, Zhou, & Soysal, 1995; Palmer, Friedland, Jennings, & Powers, 1987; Palmer, Jennings, & Zhou, 1993). As such, F500 companies are likely to be exposed to the same social norms and pressures and they do constitute a meaningful social category (Strang & Soule, 1998). Further, the different practices selected for this study are general strategies that are relevant to organizations across different industries. This study therefore stands in contrast to more narrowly-defined research that focuses on a specific industry or organizational field, such as the education or healthcare sectors (e.g., Burns & Wholey, 1993; Kraatz & Zajac, 1996; Meyer, Scott, & Strang, 1987; Scott, Ruef, Mendel, & Caronna, 2000), or on industry-specific practices, like accounting standards or curriculum reforms (e.g., Kraatz & Zajac, 1996; Mezias, 1990). I will therefore caution against generalizing the results in this study to more unique practices that apply only in highly specialized industries.

Third, I do not investigate adoption from the very onset of each organizational practice. By focusing on the adoption behaviors of F500 companies, my study examines

the diffusion of each practice from the point they are introduced into the population of the largest U.S. companies. As researchers have noted, the introduction of many innovations usually occurs in small, marginal firms located at the periphery of an organizational field (Leblebici et al., 1991; Rogers, 2003). Over time, these innovations diffused and are eventually adopted by large, dominant firms located at the center of the organizational field (DiMaggio & Powell, 1983; Leblebici et al., 1991; Meyer & Rowan, 1977; Tolbert & Zucker, 1996). While it may be interesting to examine adoptions from the very beginning, it is very difficult to do so. Information on early adoptions is usually not systematically available. Further, studies of early adoptions have observed that these behaviors are often driven by highly idiosyncratic factors that are not likely to generalize (Rogers, 2003; Strang & Meyer, 1993; Tolbert & Zucker, 1996). The research design in this study is consistent with many prior studies, including Davis' (1991) investigation of poison pills and Rao and Sivakumar's (1999) examination of investor relations departments. Even so, I caution against generalizing the results from this study to diffusion processes that began from the initial onset, like those generally investigated in studies of diffusion of innovations (Rogers, 2003; Romanelli & Tushman, 1994).

However, even with the boundary conditions highlighted above, the features of this research design—a population of organizations that exhibits separation of ownership and control and having powerful top managers, as well as substantial institutional shareholder; an external context that presents both extant and evolving social norms and pressures; a set of distinctive organizational practices that have become varyingly diffused and socially accepted over time, and extended windows of observation—present an appropriate framework to investigate the research questions raised.

CONTRIBUTIONS

This study makes several important theoretical and practical contributions. By examining how the effects of interests and carriers of institutional influences on adoption will change over time depending on the degree to which a practice becomes socially accepted, this study offers a more nuanced and dynamic model of adoption than what exists in current literature. Further, by developing and empirically testing the temporal effects of interests and carriers of institutional influences on adoption, this study offers important insights to our current understanding of agency, power, social networks, and institutions. Current literature has been relatively static, even though these concepts are recognized to change over time (e.g., Pfeffer & Salancik, 1978; Tolbert & Zucker, 1983, 1996). Lastly, as Strang and Soule (1998) have urged, the comparative research design in this study allows us to not only test the generalizability of key theoretical assertions but also provide more precise specifications about the determinants of adoption across different practices.

In the next chapter, I review the pertinent literature on organizational adoption as well as the literatures on the process of institutionalization and the diffusion of innovation that are related to this study.

CHAPTER TWO: LITERATURE REVIEW

In this chapter, I review several streams of research that have examined adoption and the diffusion of organizational practices. Given that there has been a long and diverse history of research on adoption and diffusion, I organize my review of prior literature as follows. First, I review the literature on organizational adoption under each of the following perspectives:

1. Interests Perspective. In this section, I review studies that emphasize the role of self-interests in adoption, including agency theory (Fama & Jensen, 1983; Jensen & Meckling, 1976) and theories of power and politics (Perrow, 1970, 1972; Pfeffer & Salancik, 1978). I focus my review on the interests of top managers and institutional shareholders.
2. Institutional Perspective. In this section, I review studies that emphasize the role of institutions in adoption and organize them under the three institutional mechanism of coercive, normative, and mimetic isomorphism (DiMaggio & Powell, 1983).

Second, I review two streams of literature that emphasize a process orientation of adoption: the process of institutionalization (Tolbert & Zucker, 1996) and the diffusion of innovation (Rogers, 2003). These studies examine the determinants of adoptions over time and have important implications on the dynamic modeling of the effects of interests and carriers of institutional influences on adoption behaviors of organizations.

INTERESTS AND ORGANIZATIONAL ADOPTION

Organizational researchers have long emphasized the role of social actors' interests on adoption. Theories that draw on the notion of interests include: (1) agency theory (Fama & Jensen, 1983; Jensen & Meckling, 1976; Ross, 1973) and the related

concept of managerialism (Herman, 1981; Marris, 1964; Williamson, 1964), which emphasize the self-interests and influence of top managers; and (2) theories of power and politics (e.g., Cyert & March, 1963; March & Simon, 1958; Perrow, 1970, 1972), which focus on the interests and influence of powerful organizational actors and constituents, including shareholders. The central proposition in these literatures is that the powerful actors can influence organizational behaviors, including adoption. In this section, I focus my review on studies that examined the interests and influence of top managers and institutional shareholders on adoption.

Agency Theory and Managerialism on Organizational Adoption

The self-interests of top managers have featured prominently in several streams of research, the most articulated being agency theory (Fama & Jensen, 1983; Jensen & Meckling, 1976; Ross, 1973). Attention to managerial interests was sparked by the seminal work of Berle and Means (1932), in which they described how the diffusion of ownership into the hands of many small, individual shareholders has caused the separation of ownership and control in many firms. They observed that individual shareholders, who can diversify their individual investment risk by investing in multiple companies, have little incentive to actively control the activities of the firm. Instead, they delegate the duties of active management to top managers who, consequently, enjoy high degrees of discretion over the resources and actions of their organizations. This situation can be problematic when the interests of owners and top managers are not aligned. Building on this general thesis, Jensen and his colleagues (Fama & Jensen, 1983; Jensen & Meckling, 1976) developed the central ideas of agency theory (also see Ross, 1973). They linked the concept of separation of ownership and control to the agency problem that arises when cooperating parties (i.e. the principal and the agent) have different

interests and share different responsibilities (Eisenhardt, 1989; Fama & Jensen, 1983; Jensen & Meckling, 1976).

According to agency theorists, the organization can be viewed as a nexus of contracts in which the principals, owners of the firm, contract the management of the firm to agents, top managers. However, because contracts governing the duties and responsibilities of the contracting parties cannot be completely specified a-priori, agency problems will arise. As Eisenhardt (1989) elaborated, the agency relationship presents two problems. First, when the interests of the principal and the agent are not aligned and it is difficult or expensive for the principal to monitor the agent's work, the principal cannot be assured that the agent will act appropriately in the pursuit of the principal's interest. Second, when the principal and the agent have different attitudes towards risk, the principal and the agent are likely to prefer different courses of actions. Prior literatures have observed that shareholders are primarily interested in the maximization of relatively short-term shareholders' wealth and value (Fama & Jensen, 1983; Jensen & Meckling, 1976). On the other hand, top managers are more interested in enhancing their employment security and personal wealth and prestige (Amihud & Lev, 1981; Baumol, 1959). Further, because of ownership dispersion, shareholders cannot effectively or efficiently monitor the actions of top managers. This situation presents top managers with high levels of managerial discretion and the opportunity to make choices and decisions regarding the use of the firm's resources that may be personally beneficial but at the expense of owners of the firm.

This proposition is closely related to the ideas attributed to the managerialist school in organizational studies (e.g., Herman, 1981; Marris, 1964; Williamson, 1964). Managerialists proposed that self-interested top managers with substantial managerial discretion are likely to pursue their personal goals, such as increasing personal wealth,

prestige, and job security, instead of maximizing the returns of shareholders (Davis, 1991; Westphal & Zajac, 1994; Zajac & Westphal, 2002). Hence, it is argued that when agency problems are present, top managers are likely to pursue actions that will further their self-interests, unless they are closely monitored by shareholders (or their representatives) and/or their interests are realigned with those of shareholders (Eisenhardt, 1989; Jensen & Meckling, 1976).

Managerial Power

To demonstrate the underlying agency problem in organizations, researchers have studied the effect of managerial power on the adoption of practices, including acquisition and diversification strategies (Amihud & Lev, 1981), asset capitalization (Jensen, 1989), executive compensation schemes (Westphal & Zajac, 1994), poison pills (Davis, 1991; Malatesta & Walkling, 1988; Mallette & Fowler, 1992; Sundaramurthy, 1996), and stock option repricing (Brenner, Sundaram, & Yermack, 2000; Carter & Lynch, 2001; Chance et al., 2000; Pollock et al., 2002). In one study, Amihud and Lev (1981) examined the "managerial" motives for conglomerate (diversifying) mergers and acquisitions. They observed that while diversification is likely to reduce the business risk of the entire organization, there are no potential benefits to shareholders, who can better manage their own preferred risk by organizing their individual portfolios of investments in efficient capital markets. Instead, they argued and found support that management-controlled firms are more likely to adopt diversifying acquisitions in order to mitigate top managers' employment risk, given that diversification is likely to produce less varied organizational performance, and consequently, reduces their chance of being fired. In another example of agency problem, Jensen (1989) observed that top managers prefer to use slack resources on asset capitalization instead of distributing them to shareholders because

increased capitalization of the firm can enhance their social prominence and political power (Baumol, 1959).

Studies on agency problems have also explicitly examined the exercise of managerial power vis-à-vis those of shareholders and/or their representatives (i.e., the board of directors) on adoption (Chance et al., 2000; Davis, 1991; Malatesta & Walkling, 1988; Mallette & Fowler, 1992; Wade et al., 1990; Westphal & Zajac, 1994, 1995). As political theorists have highlighted, managerial power enables the pursuit of managerial self-interests (Perrow, 1970; Pfeffer, 1981; Pfeffer & Salancik, 1978). In these studies, powerful managers are observed to adopt or influence the adoption of practices that will further their self-interests and personal goals. For example, Westphal and Zajac (1994) observed that firms with powerful CEOs are more likely to adopt long-term incentive plans (LTIP). They argued that powerful CEOs are motivated to encourage LTIP adoption as a mean to enhance their legitimacy with external stakeholders by aligning with collectively valued expectations. The pursuit of managerial self-interests is evident when they subsequently found that these influential CEOs are also less likely to implement the LTIP or to use it in a smaller magnitude. In another study, Westphal and Zajac (1995) found that powerful CEOs are more likely to appoint board members who are similar to themselves so as to create a board of directors that is more sympathetic to their concerns. They found that powerful CEOs appoint new directors who are demographically similar to themselves and that this similarity subsequently leads to higher CEO compensation.

Wade and his colleagues (1990) also examined the influence of the CEOs on the adoption of golden parachutes and found that CEOs who appointed more outside directors to the board are more likely to have golden parachutes granted to them. However, agency issues have produced mixed results on the adoption of executive stock

option repricing. Chance and his colleagues (2000) found that corporate boards with many inside directors are more likely to reprice their "underwater" or "out-of-the-money" stock options (i.e., when the current market value of the company's shares is below the "exercise" price of executives' options). However, Brenner (2000) found the opposite effect for CEO/Chair duality, an indicator of managerial power, and no evidence for the other major indicators of managerial power. In their study on executive stock option repricing, Pollock and his colleagues (2002) also found no main effect for power on repricing. However, they did find that the effects of power on repricing strengthened when the negative spread between an option's exercise price and the market value of a stock increased. Specifically, they observed that the likelihood of repricing increased when the negative spread is wide and CEOs are more powerful (measured by CEO/Chair duality). Thus, in those situations that most affect managerial self-interests, their relative power matters. Further, prior studies on poison pills also produced mixed results. Some indicators of managerial power have been found to be positively related to poison pills adoption, while others are not significant (Davis, 1991; Davis & Greve, 1997; Dowen, Johnson, & Jensen, 1994; Malatesta & Walkling, 1988; Mallette & Fowler, 1992; Sundaramurthy, 1996). For example, Mallette and Fowler (1992) found that powerful CEOs who serve as both CEO and chair of the board of directors are more likely to adopt poison pills. However, in another study, Sundaramurthy (1996) observed that powerful CEOs were not more likely to adopt poison pills.

Managerial Incentives

Agency theorists have identified managerial incentives as an important governance mechanism that will help to resolve agency problems (Eisenhardt, 1989; Fama, 1980; Fama & Jensen, 1983). Managerial incentives allow shareholders to realign managerial interests and ensure that top managers will act in the interests of shareholders.

Prior studies have examined the alignment of managerial interests through managerial stock ownership (e.g., Davis, 1991; Palmer & Barber, 2001; Sundaramurthy, 1996). Davis' (1991) study on poison pill adoption provides a good example of this. As Davis (1991) explained,

> The adoption of a poison pill is an exemplar of an agency problem, in which the interests of shareholders (i.e., in retaining an unfettered ability to receive takeover offers) conflict with those of managers (i.e., in protecting themselves and their organization from unwanted takeovers). The ability to effect this change both indicates and enhances managerial discretion: the apparent harmfulness to shareholders of poison pills implies that managers who are able to get them adopted already have substantial discretion, and once in place they buffer managers and their organization from the market for corporate control by raising the barriers to takeover. (Davis, 1991, p. 585)

Emphasizing managerial interest alignment, Davis (1991) found that greater levels of insider ownership decrease the likelihood that an organization will adopt poison pills (also see Davis & Greve, 1997; Malatesta & Walkling, 1988; Sundaramurthy, 1996). His results suggest that when managerial interests are aligned with those of shareholders through proper incentives, top managers are less likely to pursue self-serving actions (Eisenhardt, 1989; Jensen & Meckling, 1976). Stock ownership of top managers and directors has also been found to be negatively related to the likelihood of greenmail payment (Kosnik, 1987, 1990) and diversifying acquisitions (Palmer & Barber, 2001), practices that are generally perceived to be against the interests of shareholders. However, in other studies, the influence of managerial stock ownership is not supported. In their study on the adoption of golden parachutes, an executive compensation practice that benefits top managers, Davis and Greve (1997) did not find any significant effects for managerial stock ownership on its adoption. Further, Sundaramurthy (1996) found that managerial stock ownership did not influence the adoption of anti-takeover provisions that requires shareholders approval. Finally, greater CEO stock ownership did not reduce the likelihood of executive stock option repricing (Brenner et al., 2000; Carter

& Lynch, 2001; Chance et al., 2000), a practice frowned upon by shareholders who see the practice as attempts by top managers to reward themselves even though their companies have performed poorly (Byrne, 1998; Martinez, 1998). However, while Pollock and his colleagues (2002) also found no main negative effect for CEO ownership on repricing, they did find that the effect strengthened significantly when the negative spread of an option increased. Thus, proper incentives become more important when managerial self-interests diverge from those of shareholders. Overall, prior studies offered mixed results for the ability of managerial stock ownership to provide proper managerial incentives, realign the interests of top managers with those of shareholders, and resolve underlying agency problems.

In sum, theories of agency and managerialism argue that unless managerial power is adequately controlled by shareholders or their representatives and/or managerial interests are aligned with those of shareholders through proper managerial incentives, top managers are likely to adopt practices that will further their self-interests rather than those of shareholders.

Power and Politics on Organizational Adoption

The role of interests has also featured prominently in theories of power and politics. March and his colleagues (Cyert & March, 1963; March & Simon, 1958) observed that formal organizations are composed of competing coalitions that have different interests and goals as well as varying degrees of power and influence. Political theories emphasize the continual struggles between competing coalitions for resources and dominance and predict that powerful actors will adopt practices that will bolster their power (Perrow, 1970; Pfeffer, 1981; Pfeffer & Salancik, 1978). Adoption can therefore be understood as the exercise of power by dominant actors in their attempt to further their self-interests. Prior research has emphasized the interests and power of internal

constituents, particularly top managers (described above), as well as institutional shareholders (David, Kochar, & Levitas, 1998; Davis & Thompson, 1994; Porac, Wade, & Pollock, 1999). Excellent reviews of power and politics can be found in extant literature and will not be duplicated here (e.g., Mizruchi & Yoo, 2002; Ocasio, 2002). Instead, I focus on the role of institutional shareholders and their influence on adoption.

Institutional Shareholders

The interests of shareholders have garnered much attention in the wake of the 1980s takeover wave and the subsequent transformation of the market for corporate control (Davis & Stout, 1992; Fligstein, 1990, 1991; Useem, 1996). As Davis and Thompson (1994) explained,

> More recently, a parallel shift has occurred as ownership of the corporation has become concentrated in the hands of institutional investors rather than individual stockholders. Where corporate managers once faced a dispersed and relatively powerless set of stockholders, they now confront an increasingly organized social movement of fund trustees and advisors that share a common ideology of shareholder activism as well as the power to vote a substantial chunk of the largest firm's equity. Moreover, activist shareholders have expanded their demands from the circumscribed realms of shareholder rights to issues of how successors to the chief executive officer (CEO) are chosen, how much executives are paid, and even which compensation consultants is used, and they have influenced sympathetic regulators in Washington to increase the legitimate scope of their authority in corporate governance. Where shareholders were once disenfranchised outsides in corporate governance, institutional investors are now member of the polity, and their concerns are routinely taken into account in decision-making processes in firms and in governmental policy making. (Davis & Thompson, 1994, p. 141)

Davis and Thompson (1994, p. 143) reported that "[o]n average, half of the ownership of large corporations is held by institutional shareholders rather than individuals or families, and most of this is in the hands of private and public pension funds such as the College Retirement Equities Fund (CREF) and the California Public Employees Retirement System (CalPERS)" (O'Barr & Conley, 1992; Useem, 1996). With substantive investments in many of the largest U.S. companies, institutional shareholders are motivated to monitor managerial actions and take necessary actions to safeguard their

interests. As David and his colleagues (1998) explained, institutional shareholders are more likely to be actively involved in corporate governance than individual shareholders because: (1) institutions are essentially investing the money of their constituents and therefore have a fiduciary duty to protect their investments; (2) their investments in absolute monetary terms are very high and this makes it very difficult to divest their investment in response to poor management in the firms they have invested; (3) there are few alternate investment opportunities for institutions. The motivation of institutional shareholders to actively monitor and govern managerial actions is coupled by their ability to carry out efficient corporate governance. Institutional shareholders, who manage large investment funds and invest in a large number of companies, typically have the resources and experience to carry out efficient monitoring of managerial actions. Further, their substantial ownership positions in companies, either individually or as a coalition of shareholders, enable them to organize and exert their influence on managerial actions (David et al., 1998; Sundaramurthy, 1996). Lastly, with the formation of shareholder organizations, like the Council of Institutional Investors and the Institutional Shareholder Services, institutional shareholders are in a strong position to exert their influence on organization actions.

The impact of institutional shareholders' influence, proxied by the level of institutional ownership, on important organizational actions has been examined in prior research, including the adoption of corporate governance structures (Davis & Thompson, 1994), executive compensation practices (David et al., 1998; Porac et al., 1999), poison pills and other anti-takeover provisions (Davis, 1991; Davis & Greve, 1997; Mallette & Fowler, 1992; Sundaramurthy, 2000), and executive stock option repricing (Pollock et al., 2002). The central proposition in these studies is that institutional ownership is negatively related to the adoption of practices that are likely to compromise shareholders'

interests. The level of institutional ownership therefore represents the motivation as well as the ability of shareholders to exert their influence on top managers. However, prior studies have produced mixed results. For example, David and his colleagues (1998) found that institutional shareholders with only an investment and no transactional relationship with the firm are able to exert their influence and affect CEO compensation, such that compensation levels are lower and the proportion of long-term incentives is higher, features of executive compensation favored by shareholders. Further, Porac and his colleagues (1999) observed that while corporate boards tend to selectively define peers when they try to explain their compensation policy, a questionable practice given that the board is entrusted by shareholders to create appropriate and equitable executive compensation schemes, powerful institutional shareholders are able to enforce constraints on this practice and ensure that the organization accurately represent its executive compensation policy. In the case of anti-takeover provisions, Sundaramurthy (2000) observed that higher levels of institutional ownership decrease the likelihood that an organization will adopt anti-takeover provisions, particularly those that require shareholders' approval.

However, in studies on executive stock option repricing, a context that presents agency problems, institutional ownership was found to have no significant effect on the likelihood of stock option repricing in several studies (Carter & Lynch, 2001; Chidambaran & Prabhala, 2003). While Pollock and his colleagues (2002) also found no main effects for institutional ownership on repricing, they did find support that the negative effects of institutional ownership on repricing strengthened significantly when the negative spread of an option increased. Thus, institutional shareholders' influence becomes more important when managerial self-interests diverge from those of shareholders. Further, for anti-takeover provision that does not require shareholders'

approval such as poison pills, higher levels of institutional ownership actually increase the likelihood of adoption (Davis, 1991; Mallette & Fowler, 1992; Sundaramurthy, 1996). This result runs contrary to the central thesis of institutional ownership. Researchers have explained that the level of institutional ownership may also be an indicator of the degree of separation of ownership and control in large publicly-traded companies and reflects the underlying agency problem within the firm (Davis, 1991; Mallette & Fowler, 1992). Top managers in firms with high institutional ownerships are aware of their weak basis of power and may be motivated to actively engage in management entrenchment activities wherever possible. This post-hoc explanation is not strong and no other plausible explanations have been offered for this contradictory result. Overall, prior research has produced mixed results with regards to the ability of institutional shareholders to influence adoption.

By emphasizing power and politics among organizational actors, the interests perspective attends to the role of self-interests in adoption. However, critics have noted that the interests perspective overemphasizes the instrumental behavior of human actors—self-interest seeking with guile (Ghoshal & Moran, 1996; Granovetter, 1992). As Granovetter (1985; 1992) explained, social actors are embedded in structures of social relationships and it is unrealistic to assume that social actors can pursue their self-interests relatively unencumbered by social commitments and obligations. Further, many existing models of power and politics remain relatively static, even though researchers have acknowledged that managerial power is likely to change over time (Pfeffer & Salancik, 1978). In most studies, powerful managers are assumed to be able and willing to exercise their power and pursue their self-interests any time. This assumption is not reasonable given that managerial interests and their power to pursue them are jointly determined by managerial, organizational, as well as environmental characteristics that

are likely to change over time (Hambrick & Finkelstein, 1987; Pfeffer & Salancik, 1978). Similarly, with regards to managerial incentives, once aligned, incentives are assumed to be effective over time. This assumption again does not recognize the fact that interests may evolve and the alignment of managerial incentives can change over time. The static nature of current conceptualization offers an inadequate account of how interests will affect adoption and this is likely to be a key explanation for the mixed results observed in prior studies. The interests perspective's emphasis on instrumental, strategic choice has duly prompted organizational scholars to develop and explore institutional models of organizational actions that emphasized the role of socio-structural and cultural constraints on organizational actions (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Zucker, 1977). Drawing on the concept of institutionalization (Tolbert & Zucker, 1983, 1996), Westphal and Zajac (1994) argued and found support that the effects of managerial power on the adoption of long-term incentive plans (LTIP) decreased over time as the practice is argued to become progressively institutionalized as a valued corporate governance reform. Given the mixed results and the lack of empirical research on the temporal effects of different actors' interests on adoption, further theoretical development and investigation is needed.

INSTITUTIONS AND ORGANIZATIONAL ADOPTION

The role of institutions on organizational behaviors has gained much attention in recent years. In particular, researchers are interested in how institutions influence adoption and how they contribute to the diffusion as well as persistence of organizational structure and practices across a social system (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Zucker, 1977). Scott (2001) offers an excellent review of institutional theory and no attempt will be made here to duplicate his comprehensive review. Instead,

I focus on research that examines the impact of carriers of institutional influences on adoption.

Scott (2001; 2003) provides a broad conception of institution, describing them as enduring social structures that are relatively resistant to change and tend to be maintained and reproduced because of three distinctive institutional elements: regulative, normative, and cultural-cognitive, or as DiMaggio and Powell (1983) described, coercive, normative, and mimetic (DiMaggio & Powell, 1983; Jepperson, 1991; Scott, 2001, 2003). Early research on institutions focused on the elaboration of these processes (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Zucker, 1977) and their impact on organizational actions (e.g., Tolbert, 1985; Tolbert & Zucker, 1983). These studies emphasized the ability of institutions to constrain the behaviors of social actors through coercive, normative, and mimetic pressures, transmitted through a variety of institutional carriers including symbolic systems, relational systems, routines, and artifacts (Scott, 2001, 2003; Strang & Meyer, 1993). As Scott (2003, p. 882) elaborated, symbolic carriers include "various types of symbolic schemata into which meaningful information is coded and conveyed"; relational carriers include "both interpersonal and interorganizational linkages"; routines include "habitualized behaviors; patterned actions reflecting tacit knowledge held and conveyed by actors"; and artifacts include "material culture created by human ingenuity to assist in the performance of task". By transmitting social norms and legitimacy, these institutional carriers will impose restrictions on social actions by defining the legal, moral, and cultural boundaries that differentiate legitimate from illegitimate activities. When an organizational field becomes institutionalized, isomorphic pressures will drive organizations to adopt institutional forms that are deemed socially legitimate or taken-for-granted (DiMaggio & Powell, 1983). In many early studies, institutions are treated as a qualitative state or property—that is, social structures

are either institutionalized or not (Scott, 2001; Tolbert & Zucker, 1996). Prior studies on the effects of institutional influences on adoption are described below with particular emphasis on both normative and mimetic isomorphic pressures carried by various institutional carriers.

Normative and Mimetic Isomorphism on Organizational Adoption

Prior research has examined the impact of *normative* and *mimetic* isomorphism on adoption. The *normative* mechanism "involves the creation of expectations that introduce a prescriptive, evaluative and obligatory dimension into social life" (Scott, 2001; 2003, p. 880). As Scott (2001, p.54-55) elaborated, normative elements include both values, "conception of the preferred or the desirable, … standards to which existing structure or behavior can be compared and assessed", as well as norms that "specify how things should be done". They define valued objectives and the appropriate ways to pursue them. While the normative aspects of institutions constrain and limit social behaviors by installing social obligations, they also empower and enable socially-approved behaviors. Researchers have also observed that the adoption of a practice is likely in situations where mimetic pressures are strong, especially when uncertainty is high and alternate behaviors are inconceivable because a practice has become taken-for-granted as the routine way to do things (DiMaggio & Powell, 1983; Scott, 2001). As DiMaggio and Powell (1983) explained, when an organization is confronted by organizational and/or environmental uncertainties, it will turn to the actions of other organizations and model themselves after these organizations (Scott, 2001).

Normative and/or mimetic isomorphic pressures are often transmitted through various institutional carriers, including social ties among managerial elites and board interlocks (e.g., Davis, 1991; Galaskiewicz, 1985; Haunschild, 1993; Westphal et al., 1997) and the prior actions of others. Normative and mimetic isomorphism has been

demonstrated in the adoption of medical innovations (Burt, 1987; Coleman, Katz, & Menzel, 1966), M-form structure (Fligstein, 1985; Palmer et al., 1993), corporate acquisitions and acquisition premiums (Haunschild, 1993, 1994; Haunschild & Miner, 1997; Palmer & Barber, 2001), total quality management (TQM) (Westphal et al., 1997), poison pill (Davis, 1991), charitable contribution (Galaskiewicz & Burt, 1991), and market positions (Greve, 1998; Greve, 2000; Haveman, 1993a).

Social Ties

Normative expectations and mimetic pressures often arise within a social system from social ties among actors. In the context of organizations, normative and mimetic pressures can result from both formal and informal social ties among organizations' top executives. Through the process of social contagion, adoption decisions are likely to be influenced by the behavior of others who are inter-connected. As Strang and Meyer (1993) explained, information about how organizational practices can help organizations pursue their objectives is an important condition for their diffusion across a social system. While there may be multiple sources of such information, it is frequently the information offered by direct, strong, or embedded ties that is most likely to be received and trusted (Uzzi, 1997). Cohesion through social ties therefore focuses on the socialization that occurs between actors through frequent and empathic communication. By engaging in social interactions, actors come to a "normative understanding of adoption's costs and benefits" (Burt, 1987, p. 1289). Further, as Coleman and his colleagues (1966, p. 118-119) explained in their study on the adoption and diffusion of medical innovations, "[c]onfronted with the need to make a decision in an ambiguous situation—a situation that does not speak for itself—people turn to each other for cues as to the structure of the situation. When a new drug appears, doctors who are in close interaction with their colleagues will similarly interpret for one another the new stimulus that has presented

itself, and will arrive at some shared way of looking at it." Prior research that examined the normative and mimetic pressures carried by managerial elites and board interlocks will be reviewed below.

Managerial Elites. Prior research has explored the role of values and norms of managerial elites on adoption (Galaskiewicz, 1985, 1997; Haunschild & Beckman, 1998; Palmer & Barber, 2001; Palmer et al., 1987; Palmer et al., 1993). As Palmer and Barber (2001) explained, managerial elites are situated in a multidimensional social class structure characterized by ownership of wealth and resources, social and family status, educational credentials, and social ties to other elite members. They elaborated that "[a] corporate elite member's position in the class structure determines his or her interests and capacities with respect to different corporate strategies and structures, contingent on the historical context" (Palmer & Barber, 2001, p. 89). Examples of normative pressures carried through elite networks is provided by Galaskiewicz and his colleagues' (Galaskiewicz, 1985, 1997; Galaskiewicz & Wasserman, 1989) examinations of the impact of elite networks on charitable contributions in the twin cities of Minneapolis and St. Paul. In these studies, top executives' social ties to philanthropy leaders within the cities' elite networks significantly affect the amount of charitable contributions made by an organization. His interviews revealed that such philanthropic leaders exert significant social pressures on top managers and strongly influence their charitable contributions. In another example, Palmer and Barber (2001) elaborated and tested a class theory of corporate acquisitions to illustrate normative as well as mimetic isomorphic pressures. They found that "firms pursued acquisitions in this period when they were commanded by well-networked challengers who were central in elite social networks but relatively marginal with respect to social status, isolated from the resistance of established elites, and free from control of owning families" (Palmer & Barber, 2001, p. 87). Hence,

managerial elite's values and norms can be observed to guide, facilitate, as well as constrain the actions of top managers and the organizations they lead. Normative and mimetic isomorphism is also likely to be carried by informal relational ties among corporate elites. Haunschild and Beckman (1998) observed that CEO's membership in the elite Business Council or Business Roundtable is likely to influence their firm's acquisitions strategy. These associations represent the interests of managerial elites and are powerful sources of social influence on top managers.

Board Interlocks. Prior studies have also paid particular attention to interlocking directorates as a contributing factor to the cohesive "inner circle" of managerial elites (Davis, 1991; Mizruchi, 1996; Useem, 1982; Westphal & Zajac, 1997). As Westphal and Zajac (1997, p. 161) summarized, "overlapping board memberships provide a communication network for managerial elites that helps to preserve their corporate power" (Useem, 1982). Normative and mimetic isomorphism carried through relational ties has featured prominently in prior studies. In particular, researchers have focused on the formal ties among top executives established through corporate board interlocks among the largest U.S. firms (Davis, 1991; Davis & Greve, 1997; Greve, 1995, 1996; Haunschild, 1993, 1994; Haunschild & Beckman, 1998; Palmer et al., 1993; Westphal et al., 1997). For example, Haunschild (1993) found that organizations are likely to imitate the acquisition activities of tied-to firms in their board interlocks network. As she explained, top managers who sit on the board of other firms that have made acquisitions are likely to look at these acquisition activities as potential models for imitation in their own firms. Similarly, Davis and his colleague (Davis, 1991; Davis & Greve, 1997) observed that firms are more likely to adopt poison pills and golden parachutes if they are tied to other firms that have already done so. Corporate interlocking directorates therefore serves as a "community of practice" with a shared understanding of what counts

as appropriate and legitimate behaviors (Davis & Greve, 1997, p. 8). Prior studies have also demonstrated the influence of social cohesion through relational ties on adoption of multidivisional form (Palmer et al., 1993).

Prestigious Endorsement

Normative and mimetic isomorphism has also been shown to be carried by prestigious endorsement that occurs when high-status, well-respected, and successful organizations adopt new organizational practices. DiMaggio and Powell (1983) argued that in situations of uncertainty, organizations are more likely to imitate the behaviors of organizations that they perceived to be more prestigious, legitimate, or successful (Burns & Wholey, 1993; Davis & Greve, 1997). The adoption of a practice by a prestigious firm can offer a "legitimating account" or "endorsement" of the practice and this will likely contribute to its diffusion within a social system (Coleman et al., 1966; Loh & Venkatraman, 1992; Strang & Meyer, 1993). Adoptions by prestigious firms reduce the level of uncertainty that other firms may have about the practice and this will encourage other firms to adopt the same practice (Burns & Wholey, 1993; Davis & Greve, 1997; Greve, 1996). As Burns and Wholey (1993) explained, prestigious firms may actively endorse a practice which they have adopted as part of their effort to manage impressions and enhance their social status. Further, less prestigious firms are also susceptible to the influence of prestigious firms given that they may aspire to achieve the same level of prestige as these firms (Fombrun & Shanley, 1990). Hence, they are likely to attend to and emulate the adoption behaviors of these prestigious firms. The impact of prestigious endorsement on adoption is well illustrated in the study presented by Loh and Venkatraman (1992). They observed that the much-publicized information-system (IS) outsourcing arrangement between two prestigious firms, Kodak and IBM, in the late 1980s, legitimated the practice of IS outsourcing among Fortune 500 firms and

stimulated subsequent adoptions of IS outsourcing. Haunschild and Miner (1997) also observed that organizations are more likely to select investment bankers who have been previously engaged by prestigious and successful firms. Further, in her study on the market entry activities of savings and loans (S&L) firms, Haveman (1993a) found that S&L firms are likely to imitate the market entry decisions of other large and profitable firms. In sum, when prestigious firms have adopted a given practice, other firms will come to perceive the practice as important, useful, favorable, and they will be more likely to adopt the same practice for themselves.

In reviewing the literature on normative and mimetic isomorphism, most studies have ignored the temporal effects of social influences on adoption (for exceptions, see Castellucci & Haunschild, 2004; Young et al., 2001). Studies that are identified within network theory implicitly assume that social information and influences communicated through social ties will have important effects on organizational adoption all the time (e.g., Davis, 1991; Galaskiewicz, 1997; Haunschild, 1993). This stability is predicated on the idea that in the early stages of diffusion, when uncertainty about a practice is high, organizational decision-makers are likely to turn to those who they trust for information and advice (Uzzi, 1997). In the later stages, relational ties are likely to be effective carriers of normative as well as mimetic isomorphism (DiMaggio & Powell, 1983). Empirical results however have been mixed. While some studies have found the influence of social ties to be stable over time (Galaskiewicz, 1997), others have found that the effects of social ties tend to strengthen over time (Castellucci & Haunschild, 2004; Young et al., 2001). Further investigation of the temporal effects of social ties on adoption will be needed.

The temporal effects of prestigious endorsement on adoption are also not well articulated. Most studies that have examined the influence of prestigious endorsement on

adoption do not examine its effects over time (for an exception, see Burns & Wholey, 1993) and implicitly assume that isomorphism pressures carried by prestigious endorsement will have important effects on adoption all the time (Haunschild & Miner, 1997; Haveman, 1993a). On the other hand, Tolbert and Zucker's (1996) conceptualization of the institutionalization process suggests that institutional carriers of social norms and legitimacy, such as prestigious endorsement, are more likely to influence adoption in the later stages of the institutionalization process when normative and mimetic pressures are well-established and the actions of prestigious others serve as salient and useful reference for other firms (Tolbert & Zucker, 1996). However, this temporal assertion is not supported in the single study that has examined the temporal impact of prestigious endorsement on the adoption of matrix management (Burns & Wholey, 1993). Burns and Wholey (1993) observed that while prior adoptions of matrix management by prestigious hospitals encourage other less prestigious hospitals to subsequently adopt the same practice, the influence of prestigious endorsement was only significant in the early stages of adoption. Burns and Wholey (1993) offered no explanation for this result. However, a plausible explanation may be that the social influence carried by prestigious endorsement is important in the early stages of diffusion when uncertainty is at its highest. Over time, other sources of information will become available and the influence of prestigious endorsement will become less important.

In sum, the institutional perspective has made significant contributions to our understanding of organizational adoption by emphasizing the role of socio-structural and cultural influences. However, prior literature presents one major weakness. Institutions have often been treated as a state or property that either exist or do not. The central question in these studies examines whether institutions matters in organizational actions, and if they do, through which mechanisms (Scott, 2001). The result of this emphasis is

that institutional theory overlooks the role of actors' interests and choice and their contribution to the establishment of institutions. Further, it has lead to the relative neglect of the study of institutions as a process–whereby new social structures and practices are first introduced, then diffused, and progressively become institutionalized. As DiMaggio (1988) explained, by emphasizing institutions as a property or state, institutional theory situates explanations for organizational structures and practices beyond the scope of interests and politics. Yet, if we look at institutions are the outcome of the process of institutionalization, we can see that institutions are highly political and reflect the relative power of organized interests and the social actors who mobilize around them. Hence, critics argue that individuals and organizations are not passive captives of institutional pressures and that they can and do response strategically, exercising active agency and interests (Covaleski & Dirsmith, 1988; DiMaggio, 1988; DiMaggio & Powell, 1991; Oliver, 1991; Perrow, 1985; Powell, 1985). To adequately model organizational action, institutional theory must accommodate the role of organizational self-interests and active agency (Oliver, 1991; Perrow, 1985; Powell, 1985). Recently, research has began to integrate the respective roles of interests, institutions, and efficiency in organizational actions, as well as develop more a process-oriented perspective of institutions that emphasized an iterative model in which institutions, in various stages, affect both actors' interests and their actions, and are in turn, affected by these actions over time (Barley & Tolbert, 1997; Giddens, 1979; Tolbert & Zucker, 1983, 1996). In the next section, I review the limited literature on institutionalization and also summarize key ideas from the diffusion of innovation literature.

PROCESS OF INSTITUTIONALIZATION

Tolbert and Zucker (1996) observed that despite the large body of research defined within the institutional perspective, there has been surprisingly little attention given to conceptualization and examination of the process of institutionalization. Zucker and her colleagues (Barley & Tolbert, 1997; Tolbert & Zucker, 1983, 1996; Zucker, 1977, 1983) noted that institutions exist both as a property as well as a process (also, see DiMaggio & Powell, 1983) and that while institutions drive and shape the nature of social actions across levels and context, these same institutions are changing in character and potency over time (also see Barley & Tolbert, 1997; Dacin et al., 2002). Yet, in spite of these important insights, the processes of institutionalization have not been emphasized until very recently (e.g., Barley & Tolbert, 1997; Burns & Wholey, 1993; Tolbert & Zucker, 1983, 1996; Westphal & Zajac, 1994). Barley and Tolbert (1997, p. 94) assert that for "institutional theory to fulfill its promise for organizational studies, researchers must develop dynamic models of institutions (see Whittington, 1992) and devise methodologies for investigating how actions and institutions are recursively related". Advances in longitudinal data analysis, especially in event history analysis, have given researchers greater ability to simultaneously examine institutions as both as a qualitative state or property as well as a process (Scott, 2001). To reconcile the relative effects of interests, institutions, and efficiency concerns on adoption, Tolbert and Zucker (1983; 1996) proposed the process through which practices become institutionalized.

Tolbert and Zucker (1996) define institutionalization as "the process through which components of formal structure become widely accepted, as both appropriate and necessary, and serve to legitimate organizations" (Tolbert & Zucker, 1983, p. 25). Through this process, social expectation of appropriate organizational forms and behaviors come to take on rule-like status in social thought and action and

institutionalization is therefore a core process in the creation and perpetuation of enduring social structures (Berger & Luckmann, 1967; Tolbert & Zucker, 1996). The outcome of the institutionalization process is an institution. In their elaboration of the process of institutionalization, Tolbert and Zucker (1996) proposed that institutions are formed through three distinct and sequential processes: (1) habitualization, (2) objectification, and (3) sedimentation. These sequential processes correspond to three phases of institutionalization: pre-institutionalization, semi-institutionalization, and full-institutionalization (Tolbert & Zucker, 1996).

Institutionalization begins with the process of habitualization in which new structural arrangements are created in response to specific problems that confront a set of organizations. These new arrangements are adopted and formalized into the policies and procedures of an organization or an initial group of organizations so as to resolve the problems encountered. Habitualization is therefore the process that leads to "the development of patterned problem-solving behaviors and the association of such behaviors with particular stimuli" (Tolbert & Zucker, 1996, p. 181). This phase is described as the pre-institutionalization stage. An important feature of this phase is that the adoption of new organizational practices is largely the result of independent activities undertaken by separate organizations who may share a common knowledge-base that makes an innovation feasible and attractive. Hence, they argued that early adoption should largely be explained by the characteristics of an organization that make the proposed change technically and economically feasible for a given organization (Anderson & Tushman, 1990; Leblebici et al., 1991) and by internal political forces that make organizations more or less open to the proposed change (March & Simon, 1958; Palmer et al., 1987).

Tolbert and Zucker (1996) further argued that while these initial adoptions may be the results of imitation among organizations facing similar problems (DiMaggio & Powell, 1983; Nelson & Winter, 1982), they do not think that this is likely for two reasons. First, the knowledge of the new organizational practice among non-adopters without direct and strong ties to prior adopters is likely to be very limited (Nelson & Winter, 1982; Tolbert & Zucker, 1996). Second, given that there is no consensus on the general utility of the innovation, there is little sense of the necessity of imitation this at this stage. Given the infancy of the institutionalization process, institutional pressures are likely to be weak or even absent and institutional carriers of societal norms and legitimacy are not likely to influence the adoption behaviors of organizations. In sum, at the pre-institutionalization stage, adoptions are likely to be primarily driven by concerns for efficiency or by the relative interests and influence of organizational actors.

Objectification occurs next in institutionalization process. As Tolbert and Zucker (1996, p. 182) explained, it "involves the development of some degree of social consensus among organizational decision-makers concerning the value of a structure, and the increasing adoption by organizations on the basis of that consensus" and it is the crucial process in which new social structures either become established or they disappeared. This phase is described as the semi-institutionalization stage. Two important mechanisms are responsible for the emergent consensus and social legitimacy that facilitates adoptions. First, organizations draw on information provided from a variety of sources to evaluate the potential risk and returns from adopting the new practice, including reports in the mass media and direct observations of prior adopters. Monitoring the experience of prior adopters offers a low-cost change strategy for an organization, as these adopters would have tested the new practice. Further, organizations are particularly likely to pay attention to the behaviors of similar others, in

particular, their competitors, as they strive to enhance their own competitiveness; or prestigious others, whom they respect and hope to emulate. The prevalence of prior adoptions will also generally persuade organizations to adopt the practice. As Tolbert and Zucker (1996) argued, the more organizations that have adopted a practice, the more likely other organizations will perceive it as favorable and therefore, the more likely they are to adopt the practice themselves (Tolbert, 1985). Hence, interorganizational monitoring and imitation are important activities that occur during the objectification process.

Second, objectification may also be driven by "institutional entrepreneurs" (DiMaggio, 1988, p.14) or "champions" (Rogers, 2003, p. 414), social actors with an interest in promoting a given practice. These champions may include managerial elites, professions, consultants, special interest groups, and even certain organizations or groupings (e.g., Baron et al., 1986; Covaleski & Dirsmith, 1988; DiMaggio, 1991; Palmer & Barber, 2001; Palmer et al., 1993; Tolbert & Zucker, 1983). For example, Baron and his colleagues (1986) observed how the emerging profession of personnel managers after the Second World War led to the adoption and diffusion of human resource practices. What is most important about "champions" or "institutional entrepreneurs" is the critical role they play in the task of theorization (Strang & Meyer, 1993, p. 492), the "self-conscious development and specification of abstract categories and the formulation of patterned relationships such as chains of cause and effect". By offering a definition of the generic problem, the category of social actors characterized by the problem, and the justification for a particular structural solution to the problem, theorization enables diffusion to become more rapid and more universal, and less dependent on social relationships and organizational differences (Strang & Meyer, 1993; Tolbert & Zucker, 1996). As Tolbert and Zucker (1996, p, 183) explained,

> By identifying the set of organizations that face a defined problem and providing a positive evaluation of a structure as an appropriate solution, theorizing invests the structure with both general cognitive and normative legitimacy. To be persuasive and effective, theorizing efforts must also provide evidence that the change is actually successful in at least some cases that can be examined by others considering the adoption of new structure. On the basis of such theorizing, and the accompanying evidence, champions encourage the diffusion of structures throughout a set of organizations that are not otherwise directly connected. (1996, p. 183)

Prior research offers some evidence of this. In studies that looked at the prior adoptions of prestigious firms (or industry leaders), researchers found that prior adoptions by these firms are likely to influence the subsequent adoption decisions of others (Burns & Wholey, 1993; Haveman, 1993a). For example, in their study on the adoption of matrix-management structure in hospitals, Burns and Wholey (1993) argued and found support that less prestigious hospitals are more likely to adopt the practice after more prestigious hospitals have already done so. Further, Haveman (1993a) found that savings and loans firms are likely to follow the market entry decisions of their industry leaders.

At the semi-institutionalization stage, structures and practices would have become objectified and begin to diffuse across a set of heterogeneous adopters. Consequently, Tolbert and Zucker (1996, p. 183) argued that "specific characteristics of organizations that were previously identified with adoption will have relatively limited predictive power" and the "impetus for diffusion shifts from simple imitation to a more normative base, reflecting implicit or explicit theorization of structures" (Tolbert and Zucker 1983). This is because as institutions begin to take form, the progressive establishment of social norms and legitimacy will cause the practice to become regarded as an appropriate or even necessary component of "efficient" organization (Tolbert & Zucker, 1983). Correspondingly, social actors are less likely to engage in independent judgment of efficiency and/or consideration of self-interests. In sum, the influence of interests and efficiency concerns on adoption is likely to decrease, while the influence of institutional carriers of social norms and legitimacy is likely to become more important. However,

even though a practice has become fairly diffused at the semi-institutionalization stage, its longer term persistence is still uncertain. Tolbert and Zucker (1996) explained that due to their relatively short history, prior adopters as well as potential adopters will continue to monitor and evaluate the perceived effectiveness of the practice. It is necessary for the practice to undergo the next process of sedimentation before the "actors' propensity to engage in independent evaluation of the structures significantly declines" (Tolbert & Zucker, 1996, p. 184).

The third and final process of institutionalization is sedimentation. This phase is described as the full-institutionalization stage and is "characterized both by the virtually complete spread of practices across the group of actors theorized as appropriate adopters, and by the perpetuation of structures over a lengthy period of time" (Tolbert & Zucker, 1996, p. 184). Factors that contributed to the long-term persistence of a practice include the presence of active advocacy as well as the absence of active resistance. The evidence of positive outcomes associated with the practice is also important for its continual spread. However, the causal link between structure and effect is often quite distant and difficult to demonstrate. Still, as Tolbert and Zucker (1996, p. 184) argued, "full-institutionalization of a structure is likely to depend on the conjoint effects of relatively low resistance by opposing groups, continued cultural support and promotion by advocacy groups, and positive correlation with desired outcomes". The sedimentation of a structure or practice therefore results in the establishment of an institution, the end state of the institutionalization process. As Berger and Luckmann (1967, p. 54) defined, an institution is "a reciprocal typification of habitualized actions by types of actors", whereby actions that become habitualized are "evoked with minimal decision-making effort by actors in response to particular stimuli" because of the "development of shared definitions or meanings that are linked to these habitualized behaviors" (Tolbert &

Zucker, 1996, p. 180). At this stage, Tolbert and Zucker (1983; 1996) argued that adoption will no longer be explained by actors' interests or efficiency concerns but by the institutional influences carried through various carriers of social norms and legitimacy. It is important to note that the sequential processes of habitualization, objectification, and sedimentation, suggest variability in levels of institutionalization over time; that is, institutions can "vary in terms of the degree to which they are deeply embedded in a social system (more objective, more exterior), and thus vary in terms of their stability and their power to determine behavior" over time (Tolbert & Zucker, 1996, p. 181).

In summary, Tolbert and Zucker's (1983; 1996) conceptualization of the process of institutionalization argues that efficiency concerns, proxied by organizational attributes, and interests of actors, indicated by the relative power and influence of competing actors, will be the primary determinants of adoption in the early stages of diffusion. However, as practices become progressively adopted and institutionalized, the effects of interest and efficiency concerns on adoption will decrease over time. At the same time, institutional carriers of social influences will become increasingly important determinants of adoption. On the other hand, if a practice fails to become institutionalized over time, then interests and efficiency concerns that determined early adoption will continue to predict adoption over time. As Scott (2001, p. 164) summarized,

> In the early stages of an institutionalization process, adoption of the practice by organizations represents a choice on their part, which can reflect their varying specific needs or interests. As the institutionalization process proceeds, normative and cultural pressures mount to the point where adoption becomes less of a choice and more of a requirement. (2001, p. 164)

This temporal reconciliation of the effects of interests, institutions, and efficiency concerns on adoption has become generally accepted even though empirical studies have provided mixed results. Prior studies have examined this temporal model in the adoption

of civil service reforms (Knoke, 1982; Tolbert & Zucker, 1983), multidivisional (M-form) organization structure (Fligstein, 1985), matrix management (Burns & Wholey, 1993), CEO long-term incentive plans (Westphal & Zajac, 1994), total quality management (TQM) (Young et al., 2001), curricula reforms (Kraatz & Zajac, 1996), and organizational downsizing (Budros, 2004).

A major problem in several of these studies is that institutional influences on adoption are not explicitly specified or tested (Tolbert & Zucker, 1983; Westphal & Zajac, 1994). In these studies, the influence of institutions is assumed to be increasing over time, given that the effects of interests and efficiency concerns on adoption are observed to decline over time. For example, in their study on the diffusion of civil service reforms from 1885 to 1935, Tolbert and Zucker (1983) observed that in states where reforms were not mandated, adoption of reforms during the early time periods were related to the characteristics of the cities such as their size and proportion of immigrants and blue-collar workers. Tolbert and Zucker (1983) interpreted the declining impact of city characteristics on adoption to indicate a corresponding development of an institutional logic that encourages reforms among cities regardless of their requirements or conditions. They concluded that the underlying rationale for the adoption of reforms changed over time, whereby early adoptions were driven by internal organizational requirements, while late adoptions were driven by institutional definition of legitimate structure. Similarly, Westphal and Zajac (1994) found that the influence of the chief executive officer (CEO) and the performance of the organization were important predictors of long-term incentive plans (LTIP) adoption among the largest U.S. companies but that these influences weaken over time. However, because these studies did not explicitly identify and examine the impact of carriers of institutional influences

on adoption over time, they provide little information about how institutions may be influencing adoption.

Further, in the few studies that do examine the influence of institutional carriers on adoption over time, only a limited set of carriers have been examined and no consistent temporal trend has been observed (Budros, 2004; Burns & Wholey, 1993; Young et al., 2001). For example, contrary to Tolbert and Zucker's (1983; 1996) assertion for increasing institutional influence over time, Burns and Wholey (1993) found that while economic predictors of adoption did decline in their influence over time, they did not find a corresponding increase in institutional influence when they used time at risk of adoption as an indicator of increasing institutional isomorphism. Also, in Fligstein's (1985) study of M-form adoptions over five decades, efficiency concerns, proxied by organizational strategies, remained significant even at the latter stages of the diffusion process. Further, in direct contrast to Tolbert and Zucker's (1983; 1996) assertion of a decreasing impact of efficiency concerns on adoption over time, the influence of unrelated-diversification and merger strategies on adoption actually increased over time. Lastly, institutional influence carried by the prevalence of the M-form structure in the industry, an important indicator of societal norms and legitimacy (Hannan & Freeman, 1977), was found to be important even at relatively early stages of the diffusion cycle. Similarly, Budros (2004) observed that the prevalence of downsizing influence adoption during early as well as late stages of diffusion. One reason for these inconsistent results is that many practices do not become fully institutionalized or not. Instead, they tend to acquire varying degrees of social acceptance or appropriateness over time without becoming necessary, legitimating, or taken-for-granted as full-institutionalization will suggest (Tolbert & Zucker, 1996).

Other studies have also put this temporal reconciliation of the role of interests, institutions, and efficiency concerns on adoption into question (Kraatz & Zajac, 1996; Palmer et al., 1993; Strang, 1990; Swanson & Ramiller, 1997). For example, contrary to Tolbert and Zucker's (1983; 1996) assertion that interests and efficiency concerns are not likely to influence late adoptions, Palmer and his colleagues (1993) found that several economic and political factors remain highly predictive of multidivisional form (M-form) adoptions, even after the form has become institutionalized in the late 1960s. Also, Kraatz and Zajac (1996) found that the effects of local market conditions on curricula reforms persist over time. Similarly, in his historical study of decolonization among Western dependencies, Strang (1990) observed that certain institutional conditions do not merely contribute to the adoption at the latter stages of the diffusion process but may actually trigger initial adoptions. Similarly, Swanson and Ramiller (1997) argued that institutional processes that contribute to the development of an organizing vision are central to both early and late adoption of an IS innovation.

Hence, while the process of institutionalization offered by Tolbert and Zucker (1983; 1996) contributes to the development of an integrative and dynamic model of adoption, the general model in which interests and efficiency concerns are primary predictors of early adoption, and institutional influences are primary predictors of late adoption, may be overgeneralized. Results from prior studies suggest that this temporal model may apply more to practices that have become fully institutionalized—"become widely accepted, as both appropriate and necessary, and serve to legitimate organizations" (Tolbert & Zucker, 1983, p.25)—or have clearly failed to do so. However, given that most practices do not go through such a distinct process of institutionalization, how different actors' interests and various institutional influences

will affect adoption over time as a practice becomes varyingly diffused and socially accepted remains unclear. Addressing this gap is the central objective of this study.

DIFFUSION OF INNOVATIONS

The literature on the diffusion of innovation offers several insights about the dynamic nature of adoption within a social system. Wejnert (2002, p. 297) defines diffusion of innovation as the "spread of abstract ideas and concepts, technical information, and actual practices within a social system, where the spread denotes flow or movement from a source to an adopter, typically via communication and influence". Given that research on diffusion of innovation is diverse, I confine my review to the central concepts of diffusion and summarize results that emphasize adoption over time.

The most prominent concept from the diffusion of innovations literature is the S-shaped curve of adoption. The S-shaped curve records the cumulative frequency of adoption over time and is derived from the normally-distributed adoption frequency distribution over time (see Figure 1). In the S-shaped adoption curve, adoption frequency is low at the onset of the innovation. Subsequent counts of adoption rise slowly over the initial time periods. After these initial periods, the number of adoption begins to increase and the cumulative adoption increases rapidly until about half the pool of potential adopters have adopted. Thereafter, the cumulative adoptions continue to increase but at a decreasing rate as fewer of the remaining potential adopters adopt (Rogers, 2003; Ryan & Gross, 1943).

While the S-shaped curve of adoption has been shown to be fairly robust in prior studies, Rogers (2003) argued that it most appropriately describe cases of successful innovations, whereby an innovation spreads to a vast majority of the potential pool of adopters in a social system. Further, the S-shaped curve offers a better description of the diffusion of technological innovations or other innovations that exhibit distinctive

lifecycles in which one innovation is replaced by other subsequent innovations. A classical example of this is the case of disk drive technology in which the 14-inch drive was replaced by the 8-inch drive, which was in turn replaced by the 5¼-inch drive, and later the 3½-inch drive (Christensen & Bower, 1996). For other types of innovations, especially organizational and administrative innovations, the shape of the cumulative S-shape adoption curve is less precise as their frequency distributions are often not normally distributed (Davis, 1991). For example, Davis (1991) observed that the distribution of poison pills adoptions within a sample of the largest U.S. companies was not normally distributed over his window of observation. Rogers (2003, p. 6) asserts that the diffusion of innovation is fundamentally a process of social change in which "alteration occurs in the structure and function of a social system" through the communication of new ideas and the progressive adoptions of the innovation among members of the social system. Because an innovation is perceived as new by an individual or other unit of adoption, the adoption decision is shrouded in uncertainty. Individuals are motivated to seek and process information that will reduce uncertainty about the relative advantages and disadvantages of an innovation and help them to decide on whether to adopt or reject an innovation.

Research that focuses on the characteristics of adopters to discover what predicts the relative innovativeness of members in a social system is relevant to this study. Rogers (2003, p. 22) explains that innovativeness refers to the "degree to which an individual or other unit of adoption is relatively earlier in adopting new ideas than the other members of a social system". Building on the normal distribution of adoptions, Rogers (1958) developed five categories to describe adopters based on their relative innovativeness: innovators, early adopters, early majority, late majority, and laggards (Rogers, 2003, p. 280).

The first set of adopters is the *innovators*. Being the first to adopt an innovation, innovators are likely to maintain relationships to outside networks where innovations are likely to be found. They are also likely to have greater absorptive capacity to deal with new and complex ideas as well as greater tolerance for uncertainty and risk. More importantly, innovators need to have control over sufficient financial resources that will allow them to experiment and sustain losses should the innovation fail. Being "venturesome", innovators may not enjoy much respect from members of the social system who consider them as being too radical (Rogers, 2003, p. 280). *Early adopters* are the next to adopt an innovation. They are often an integral part of the social system and enjoy high degree of opinion leadership and respect from other members. Early adopters are often looked upon as role models and other members are likely to turn to them for advice and information about an innovation. Early adopters are critical to the diffusion process as they help to disseminate information within a social system, offer their subjective evaluations to others, and provide endorsement for an innovation. *Early majority* forms the next group of adopters. They are a central part of the social system but seldom hold positions of leadership. Early majority are deliberate adopters who are willing to try out an innovation after it has been tested by others. Accounting for a substantive portion of the early adopters, early majority forms the interconnectedness within the social system that facilitates the rapid spread of the innovation. The *late majority* is the next set of adopters. They are often skeptical of new ideas and will only adopt under economic or social pressures. A major reason for their late adoption is that the late majority tends to have relatively fewer resources and can only adopt an innovation after most of the uncertainty has been resolved. Finally, the last set of adopters is the *laggards*. They are the most parochial in their outlook and many are near isolates in the social system. Laggards prefer traditions over innovations. However,

many laggards may also have very rational reasons for not adopting earlier. They often suffer from limited resources and will adopt an innovation only after it has proven to be useful.

In studies that emphasize the organization as the unit of adoption, Rogers (2003) observed that innovativeness (i.e., early adoption) is positively associated with leader's attitude towards change; members' knowledge and expertise, as well as interconnectedness; slack resources and size; and the degree of system openness (also see Attewell, 1992). For example, Mahler and Rogers (1999) found that large German banks were more likely to adopt a set of communication technology innovations. These characteristics encourage adoption because they facilitate the flow of new ideas into the organization as well as within the organization so that new ideas may be effectively analyzed and utilized. Organizational innovativeness is negatively related with the degree of centralization and formalization in the organization because these structural arrangements inhibit the flow of new ideas and prevent them from being effectively utilized.

Even though these generalizations have been observed in prior studies, Rogers (2003) noted that the correlations between the characteristics of the adoption unit and innovativeness have been relatively low. He posited that the reason for this is because these organizational characteristics "may be related to innovation in one direction during the initiation phases of the innovation process, and in the opposite direction during the implementation phases" (Rogers, 2003, p. 413). It is therefore important for researchers to develop more complete models of adoption over time so as to provide a more accurate understanding of how different factors influence adoption over time.

The review of the roles of actors' interests and carriers of institutional influences on organizational adoption, as well as the process of institutionalization and the diffusion

of innovations provides the theoretical foundation of this study. In the next chapter, I draw on the above theoretical foundations to develop testable hypotheses about the evolving effects of interests and carriers of institutional influences on the adoption of three practices that have become varyingly diffused and socially accepted over time, while controlling for the effects of efficiency concerns.

CHAPTER THREE: THEORY DEVELOPMENT AND HYPOTHESES

The central thesis of my dissertation argues that the effects of actors' interests and carriers of institutional influences on adoption will change over time depending on the degree to which a practice becomes socially accepted. This is because as the degree of social acceptance for a practice changes over time, it will not only influence actors' interests and their ability to further them but also determine the effectiveness of different carriers of social influences, and consequently, determine how these factors will affect adoption. I argue that to acquire a better understanding of how organizations may change and adapt, we must develop a more dynamic model of adoption that takes into account how changing degrees of social acceptance of a practice over time will moderate the effects of interests and carriers of institutional influences on adoption.

In the following sections, I draw on prior literature to develop my hypotheses. I organize my chapter as follows. First, because the research setting is critical to any study on adoption, I provide a detailed description of each practice, including how they diffuse, and how they achieve different degrees of social acceptance over time. Second, I propose hypotheses about the main effects of actors' interests and carriers of institutional influences on adoption as suggested by prior research. I further develop dynamic hypotheses about how changing degrees of social acceptance over time will moderate these effects. To summarize, I present a summary of the hypotheses in Table 1.

THREE ORGANIZATIONAL PRACTICES

In this study, I select three practices that have undergone varying processes of diffusion and achieve different degrees of social acceptance over time. The three

practices are: (1) tender offer takeovers; (2) poison pills takeover defense; and (3) executive stock option repricing. These practices are interesting for several reasons. First, all three practices are somewhat contentious in that they present ambiguous costs and offer questionable benefits to different stakeholders. This presents potential agency problems among top managers, who are likely to prefer them, and shareholders, who are likely to frown upon them. Second, and more importantly, the practices exhibit different trends in terms of their degrees of social acceptance over time among key stakeholders including top managers, shareholders, and the business community at large. Hence, these practices offer a unique opportunity to examine how evolving degrees of social acceptance over time will moderate the effects of interests and carriers of institutional influences on adoption. Detailed accounts of each organizational practice are presented next.

Tender Offer Takeovers

During the 1960s and the 1980s, the U.S. economy experienced the two largest waves of corporate acquisitions in history. Between the start of the first wave and the end of the second wave, the fundamental nature of corporate acquisitions underwent a major transformation. In the 1960s, acquisitions typically involved friendly mergers, in which larger firms took over smaller firms, frequently in unrelated industries, and completed through stock payments. The underlying motivation for corporate acquisitions in the 1960s was the pursuit of corporate diversification (Palmer et al., 1995; Shleifer & Vishny, 1991). In the 1980s, acquisitions frequently involved hostile tender offer takeovers, in which large firms or entrepreneurial individuals, also known as "corporate raiders", took over other large firms through cash payments (Bhagat, Shleifer, & Vishny, 1990; Shleifer & Vishny, 1991). The hostile approach to acquisitions was thereby

introduced into the population of the largest U.S companies in the late 1970s, diffused across the population throughout the 1980s, and persisted to date.

A tender offer takeover is a public offer by an acquirer to the shareholders of the target company to purchase a substantial, controlling percentage of target's shares at a premium over the current market price for a limited period of time (Fowler and Schmidt, 1988; Securities Exchange Commission, 2004). By making a public offer directly to shareholders, tender offer takeovers seek to acquire a target company without engaging its top management and board of directors in negotiations. Tender offer takeovers, therefore, represent unsolicited and unfriendly attempts to acquire another company[1]. Such corporate acquisitions were largely driven by the competition for corporate control and frequently resulted in the divestiture of the target firm's various holdings. This type of corporate acquisitions is also known as "bust-up" takeovers (Bhagat et al., 1990; Hirsch, 1986; Shleifer & Vishny, 1991). As Shleifer and Vishny (1991) observed, approximately twenty-eight percent of the 1980 *Fortune 500* companies were acquired between 1980 and 1990 (also see Davis & Stout, 1992).

While tender offer takeovers, as a means of acquiring ownership and control of another firm, did take place in earlier time periods (from 1950s to 1960s), they were relatively few in number (Hirsch, 1986). These hostile takeovers were largely adopted by small firms that took over other small firms, or by conglomerate firms that were pursuing a growth strategy through diversifying acquisitions (Hirsch, 1986; Palmer et al., 1995). These early tender offer takeovers did not threaten or affect large, established corporations, and attracted little attention among the established business community.

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[1] It is possible that a tender offer takeover is made even though the acquisition is a friendly merger. There is no publicly available information to identify such transactions. It is only possible to identify if a tender offer is friendly (i.e., accepted by the target firm) or hostile (i.e., rejected by the target firm) after it has been made.

Throughout the 1970s, tender offer takeovers remained a deviant innovation that was generally regarded "as illegitimate and not widely adopted as an institutional innovation" (Hirsch, 1986, p. 808).

Between 1969 and 1972, takeover activities declined sharply due to regulatory changes regarding hostile tender offer takeovers. These regulatory changes did not prohibit hostile takeovers but instead redefined the rules for their utilization by requiring that: (1) acquirers must be able to pay the premium offer price and have secured funding prior to making a tender offer; and (2) targets are provided with more time to pursue alternative options, such as finding merger partners that are more acceptable or to seeking shareholders' rejection (Hirsch, 1986). With the regulatory changes and evolving business climate, larger and more established companies begin to adopt tender offer takeovers from the mid-1970s onwards. As the established business community "came to participate in the revision of the rules, procedures, and normative framing of the transaction, the hostile takeover achieved more wide-spread adoption" and came to be "included in the portfolio of investment and growth strategies pursued by major American corporations" (Hirsch, 1986, p. 813). Records of tender offers reported in the *Austin Tender Offer Statistics* from 1971 to 1979 revealed that while the number tender offers increased over this period, it was not until the late 1970s that tender offer takeovers began to diffuse across the largest U.S. companies. Companies in the oil and tobacco industries were the first to break the social norm in which established companies recognized the rights of each other to exist as independent entities and not to engage in hostile takeovers of other large, established firms. Throughout the 1980s, increasing numbers of large and established companies began to adopt tender offer takeovers as a corporate acquisition strategy (Hirsch, 1986). In their evaluation of the legitimacy of hostile takeovers, Castellucci and Haunschild (2004) performed content analysis of key

business periodicals and reviewed the behaviors of legislatures relating to hostile takeovers. They observed that while anti-takeover regulatory actions were frequent in the early 1980s, they decreased over time. Further, consistent with Hirsch's (1986) assertions, they found that the tone of popular business media changed from generally negative in the early 1980s to more positive in the late 1980s. They concluded that hostile takeovers became more legitimated over time and that by the late 1980s the practice was generally regarded as a legitimated and socially accepted strategy for corporate acquisitions by the population of the largest U.S. companies. The social acceptance of tender offer takeovers is affirmed by its persistence throughout the 1990s and 2000s. The SDC database on mergers and acquisitions revealed that tender offer takeovers continued to be adopted throughout the last two decades. Between 1980 and 2004, 513 F500 companies (i.e., approximately thirty-one percent of all F500 companies listed on *Fortune* from 1980 to 2004) have engaged in at least one tender offer takeover. Recent examples of unsolicited tender offers include Comcast Corp. $54.1 billion bid for Walt Disney Co. (9 February, 2004), Oracle Corp. $5.1 billion bid for PeopleSoft Inc. (18 July, 2002), and Wells Fargo & Company $11 billion bid for First Interstate Bancorp (19 October, 1995). These evidences illustrate how the degree of social acceptance for tender offer takeovers progressively increased over time. Figures 2a and 2b illustrate the frequency of tender offer takeovers among F500 firms from 1980-2004 and the cumulative percentage of adoption by F500 companies listed between 1980 and 2004 respectively.

The rationale for tender offer takeovers differs significantly from those of friendly mergers. When compared to friendly mergers, tender offer takeovers are often more expensive, usually take longer to complete, are more likely to be resisted by the target firm, and are less likely to be successfully completed (Schnitzer, 1996). While synergy is

the main rationale for friendly mergers, extracting unrealized gains is the main driving motive behind tender offer takeovers. Consistent arguments in the financial literature, Schnitzer (1996) argued that an acquirer, motivated by the potential of unrealized gains in a target firm, would prefer a hostile tender offer takeover to a friendly merger because the acquirer can retain greater potential gains by negotiating directly with uninformed shareholders, rather than with informed top executives of the target firm, who can otherwise appropriate much of the potential unrealized gains. The hostile approach to corporate acquisition is therefore predicated on the basis of extracting maximum unrealized gains from the target firm. While this explanation is prevalent and compelling, there is little empirically evidence for this in prior research.

A less rational explanation for tender offer takeovers is also offered by Austin and Fishman (1970) and is echoed in popular business media accounts of hostile takeovers (Hirsch, 1986). They noted that tender offer takeovers are highly glamorous and intriguing corporate competitions that tend to attract intense media attention. Hostile takeovers, therefore, have important implications for top managers who engaged in such contests for corporate control. Successful hostile takeovers can potentially raise the personal prestige and social status of top managers in the acquiring firm. At the same time, top managers in the acquired firms are not only likely to lose personal prestige but also their jobs. These arguments suggest that top managers may prefer the hostile approach for personal reasons even if other alternative approaches are available to them. While anecdotal evidence for this can be observed in some prior accounts of hostile takeovers, there is again little empirical data to support this political explanation of tender offer takeovers.

The preference of shareholders of an acquiring firm for tender offer takeover is less clear because of its uncertainty in advancing shareholders' interests. Given that

potential takeovers are often described as being motivated by potential synergistic gains and that hostile takeovers promise an opportunity to extract maximum potential value from the target firm (Schnitzer, 1996), shareholders hoping to maximize their wealth should prefer tender offer takeovers to friendly mergers. On the other hand, hostile takeovers are more expensive and less likely to be successful. As such, shareholders of an acquiring firm may prefer friendly mergers to tender offer takeovers. Given that shareholders of the acquiring firm, like shareholders of the target firm, are not likely to be fully informed about the potential of an acquisition, we can reasonably expect them to object to the more expensive and riskier approach of corporate acquisition. However, there is again no empirical evidence for both propositions about shareholders' preference for tender offer takeovers in prior research.

Given that so little is known about why organizations engage in tender offer takeovers, this context provides an intriguing opportunity to examine how the interests of different actors and the social influences carried by different institutional carriers may influence adoption over time as its degree of social acceptance changes. In this study, I examine the adoption of tender offer takeovers from 1980 to 2004. Preliminary data from the Securities Data Corporation (SDC) database shows that for this period, over 510 companies of all listed F500 attempted an estimated 926 tender offer takeovers. By extending the observation window beyond those covered in prior studies, this study evaluates the effects of actors' interests and carriers of institutional influences on adoption from its early introduction into the population of the largest U.S. companies, through its gradual diffusion, and its perpetuation to date.

Poison Pills Takeover Defense

The 1980s ushered the largest wave of corporate acquisitions in U.S. history. As researchers have observed, this takeover wave was fueled by the availability of large

amount of loan capital, changes in tax laws, innovative financial instruments, and a favorable regulatory climate (Davis, 1991; Davis & Stout, 1992; Lee & Pawlukiewicz, 2000). Davis and Stout (1992) reported, between 1980 and 1990, 29 percent of the 1980 *Fortune 500* companies experienced at least one takeover or buyout attempt. Many of these attempts were unsolicited and hostile in nature. The increase in the number of hostile takeovers during the early 1980s led to the introduction and rapid diffusion of an innovative takeover defense mechanism known as "shareholder rights plan" or poison pills.

Poison pills are contingent securities that are designed to make hostile takeovers more difficult (Davis, 1991; Dowen et al., 1994; Mallette & Fowler, 1992). They are adopted by the board of directors, generally without shareholders' approval, and are implemented through the issue of stock purchase rights to existing shareholders. Poison pills can be fairly complicated and while they do vary in their specifics, they generally have the following characteristics: (1) they are triggered by an acquisition of 10-20% of outstanding stocks by a single entity; (2) they give target's shareholders the right to buy shares in the target and/or acquiring firm at a steep discount; (3) they can be redeemed by the board of directors for a nominal fee to allow a friendly merger to take place. Poison pills are essentially worthless unless they are triggered by a hostile takeover attempt. When triggered, poison pills will result in the dilution of the acquirer's equity holdings in the target company, a loss of the acquirer's voting interests in the target company, or the assumption of unwanted financial obligation by an acquirer in the post-merger company (Mallette & Fowler, 1992). The net effect of poison pills is to make a hostile takeover attempt prohibitively expensive. Poison pills are recognized as the most restrictive takeover defense that a firm can adopt, and past studies have found them to be highly effective in preventing any takeover attempts (Malatesta & Walkling, 1988).

When poison pills were introduced into the population of the largest U.S. companies in 1984, the practice was quite controversial and its legality and legitimacy were aggressively challenged by shareholders and potential corporate acquirers (Davis, 1991; Lee & Pawlukiewicz, 2000). Opponents of poison pills believe that poison pills led to management entrenchment and discouraged legitimate takeover attempts (Davis, 1991; Malatesta & Walkling, 1988; Sundaramurthy, 2000). Shareholders, in particular institutional shareholders, argued that poison pills infringe on their rights as owners to sell their shares under conditions of their own choice. Further, agency theorists argued that the adoption of poison pills would shield top managers from the disciplinary power of external market for corporate control (Fama, 1980; Fama & Jensen, 1983; Jensen & Meckling, 1976), thereby giving top managers greater balance of power vis-à-vis shareholders. Critics also recognized the private motivation that top managers might have in adopting poison pills, given that executive turnover is likely in acquired firm following a hostile takeover. Shareholders' objections to poison pills were evident in that a firm's stock price tends to suffer a decline after adopting poison pills (Malatesta & Walkling, 1988; Ryngaert, 1988). Further, institutional shareholders, like the College Retirement Equity Fund, and shareholder organizations, like the Council of Institutional Investors, had actively opposed the adoption of poison pills (Davis, 1991). On the other hand, advocates of poison pills, in particular top managers, argued that poison pills protect the interest of shareholders by forcing potential acquirers to negotiate with the target's board of directors and top managers who are in the best position to safeguard shareholders' interest (Sundaramurthy, 2000). By increasing the bargaining power of the target firm, poison pills will allow shareholders to extract higher premiums from potential acquirers in the event of a takeover.

The legality of poison pills was established on November 19, 1985, when the Chancery Court in Delaware, in the case of *Moran v. Household International, Inc*, upheld a firm's right to adopt poison pills without shareholder approval when the firm was not threatened by a takeover at the time of adoption. Prior to this ruling, only seventeen F500 companies had adopted poison pills, with the first being Crown Zellerbach, who adopted on July 19, 1984 (Davis, 1991). Subsequent to the ruling, the number of adoptions among F500 firms increased rapidly. By the end of 1989, the practice has become widely diffused with approximately sixty percent of the publicly traded firms listed on the 1986 F500 having adopted some form of poison pills takeover defense (Davis, 1991).

While poison pills did establish some degree of diffusion within the population of the largest U.S. companies over time (Castellucci & Haunschild, 2004; Davis, 1991) it is important to note that the practice was not considered legitimate by shareholders, who continued to actively resist the adoption of new poison pills and the ratification of existing plans (McGurn, 2001; Velasco, 2002). Over time, as new firms enter the F500 population, the percentages of F500 companies adopting poison pills decreased from nearly sixty percent in 1990 to a little over forty-six percent in 2004. Even as more firms enter the *Fortune 500* list, fewer new arrivals are adopting poison pills. Further, some early adopters also abandon their poison pills when their initial plan lapsed. Hence, even as poison pills continue to be adopted today, existing plans are abandoned, and the advocacy for and the resistance to the practice continue to persist over time. Given the continual tension for and against the practice over time, it is reasonable to conclude that the degree of social acceptance of poison pills have remained relatively unchanged over time. Figures 3a and 3b illustrate the frequency of poison pills adoption among F500

firms from 1984-2004 and the cumulative percentage of adoption by F500 firms listed between 1980 and 2004 respectively.

The continuing tension between proponents and opponents of poison pills and its diffusion among the largest U.S. companies provides a unique opportunity to examine how potentially competing interests of top managers and shareholders and the social influences carried by institutions may influence adoption over time. In this study, I examine the adoption of poison pills from its inception in 1984 to 2004. This extends the observation window beyond those covered in prior studies and allows the evaluation of the effects of different interests and carriers of institutional influences on adoption over time even as its social acceptance remains essentially unchanged.

Executive Stock Option Repricing

The advent of corporate governance reforms in the U.S. in the last two decades has seen to the increased use of stock options as a key component of executive compensation. Drawing on agency theory, advocates posit that executive options create a direct link between executive compensation and the performance of the firm, thereby aligning managerial interests with those of shareholders (e.g., Fama & Jensen, 1983; Jensen & Meckling, 1976). In his comprehensive study of executive compensation, Murphy (1999) noted that the use of executive stock options exploded in the 1980s and 1990s and is today used by most of the largest U.S. firms. Daily and her colleagues (2000) reported that as many as 98 percent of the largest U.S. companies awarded stock options to their top managers and directors by the late 1990s. The importance of stock options is further reflected by the fact that they frequently represent the largest component of executive compensation (Murphy, 1999), and can be as high as 55 percent of CEO's compensation today (Daily, Certo, & Dalton, 2002). While the features of stock options may differ in their specifics, they usually have the following characteristics:

(1) the terms of executive stock options are fixed at the time the options are granted, including the vesting schedule, the "exercise" or "strike" price, and the term of maturity; (2) the typical executive stock options have a vesting schedule that range from three to four years and they usually mature in five to ten years; and (3) the "exercise" or "strike" price of the stock options is frequently set at the firm's share price on the day the options are granted.

Although the terms of executive stock options are fixed on the day they are granted, they are sometimes changed by the firm before they mature. This practice is known as stock option repricing and occurs when: (1) the exercise or strike price and/or the maturity term of existing option contracts are changed, such that "exercise" or "strike" price is lowered and maturity term is increased; or (2) existing option contracts are cancelled and new options with more favorable terms are reissued. Both events are recognized by the Financial Accounting Standards Board (FASB) as stock option repricings. Firms typically reprice their options when their share price has suffered a major decline such that the current market price of their shares is below the "exercise" or "strike" price of the executive stock options, a situation commonly described as being "underwater" or "out-of-the-money". These "underwater" or "out-of-the-money" options are essentially worthless.

While firms may reprice any type of stock options they have granted, I am interested in the repricing of executive stock options. Proponents of executive stock options repricing offer two rationales. First, organizations, particularly young, high-technology firms, argue that repricing is necessary to retain talented top managers. "Underwater" or "out-of-the-money" executive stock options will substantively affect executive compensation and top managers who are not adequately compensated are likely to leave their firms (Chidambaran & Prabhala, 2003; Daily et al., 2002; Pollock et al.,

2002). Second, proponent have also argue that executive stock options that are substantively "underwater" or "out-of-the-money" cannot continue to offer managerial incentives and properly align managerial interests with those of shareholders. To realign managerial interests, organizations with "underwater" or "out-of-the-money" executive stock options must reprice them (Chidambaran & Prabhala, 2003; Daily et al., 2002; Pollock et al., 2002). This rationale was offered for repricings in the late 1980s as a result of difficult economic conditions, epitomized by stock market crash of October 1987. Early repricings were therefore represented as an appropriate response to the agency situation brought about by sudden and severe business declines that cannot be attributed to top managers.

However, executive stock option repricing has also come under severe criticism by shareholders, private and public interest groups, academics, and popular business media (Byrne, 1998; Martinez, 1998). Critics have recognized that the managerial incentive rationale for repricing is weak. They argue that by allowing executive stock options to be repriced, organizations essentially undermine the ability of stock option to function as a mechanism of managerial incentive and interest alignment (Acharya, John, & Sundaram, 2000; Martinez, 1998). With executive stock option repricing, top managers' down-side risk is removed, and they will profit from both positive as well as negative share performance. Further, critics argue that repricing after a period of poor share price performance and decline in firm value is simply rewarding top managers for performing poorly (Byrne, 1998). These critics argue that top managers who presided over their firm's decline should be fired instead of being rewarded for their companies' poor performance. Institutional shareholders and shareholders' interest groups, in particular, are very critical of this practice and regard it as a blatant example of managerial entrenchment and the failure of prevailing corporate governance mechanisms

to address the inherent agency problems. Institutional shareholders, such as the State of Wisconsin Investment Board, have actively undertaken initiatives to ensure that executive stock option repricings do not occur without prior shareholder approval (Byrne, France, & Zellner, 2002).

Preliminary data from the S&P's EXECUCOMP database shows that executive stock option repricings proliferated in the 1990s. While there are no clear accounts of when the practice began, executive stock option repricing is generally recognized to have started in the late 1980s, in response to the difficult economic conditions mentioned earlier. Early versions of the practice typically involve the award of additional stock option grants and, to a lesser degree, the lowering of the exercise price for existing stock options (Gilson & Vetsuypens, 1993; Saly, 1994). However, repricing of stock options was not a common executive compensation practice in the late 1980s. The practice was mostly limited to extraordinary circumstances such as when firms are in financial distress (Gilson & Vetsuypens, 1993) or immediately after the stock market crash of October 1987 (Saly, 1994). The practice was initially accepted (or at least tolerated) as a managerial incentive strategy to retain talented top managers, especially in situations where any shape declines in stock prices were due to broad macroeconomic changes and not because of poor management. Their applications in the late 1980s brought the practice to the attention of the business community who began to incorporate the practice into their repertoire of executive compensation practices under normal business conditions in the 1990s (i.e., in economic conditions where there are not huge market movements). Executive stock option repricing proliferated in the early 1990s among small, young, and high-technology firms (Brenner et al., 2000) and continued until 1999 when it experienced a sharp decline following changes to the FASB accounting policies governing executive stock option repricing. While executive stock option repricing

diffused across many smaller, younger, and high-technology companies in the 1990s (Brenner et al., 2000; Carter & Lynch, 2001), the practice failed to diffuse among the population of the largest U.S. companies. By 2000, slightly over four percent of the all F500 companies listed between 1980 and 2004 (i.e., only 50 unique firms adopting 63 repricing events from over 1600 companies listed on *Fortune*) have done at least one executive stock option repricing.

Initial assessment of executive stock option repricing shows that the practice failed to establish a basis of social legitimacy and acceptance among the largest U.S. companies over time. Following a simplified version of Castellucci and Haunschild's (2004) approach to evaluating the legitimacy of organizational practices, I conducted a content analysis of articles about stock option repricing in popular business media and reviewed actions of institutional shareholders and regulatory agencies. Assessment of articles on executive stock option repricing showed that critiques of the practice increased steadily from the mid-1990s, with numerous articles published in popular business media criticizing the practice (Byrne, 1998; Byrne et al., 2002; Martinez, 1998). These accounts not only highlighted criticisms from shareholders (especially institutional shareholders and their interest groups), but also harsh criticism by business academics (Byrne, 1998). Reviews of institutional shareholders' actions also revealed that major institutional shareholders, like the State of Wisconsin Investment Board, have taken active initiatives to prevent the adoption of executive stock option repricing, including pressing companies to put proposals for stock option repricing up for a shareholder vote (Byrne, 1998). These criticisms eventually led the Financial Accounting Standards Board (FASB) to enact new accounting standards for stock options repricing that require organizations to be more responsible and accountable when they choose to reprice their options. Further, throughout this period, the practice was not embrace by the established business

community and only a very small proportion of F500 actually adopted the practice before policy changes led to a shape decline in adoption after 1999. These evidences, together with the few cases of repricing among F500 companies, show that while executive stock option repricing was accepted (or at least tolerated) as a managerial incentive strategy in the late 1980s, it became less socially accepted (or rather, more socially unacceptable) over time. Figures 4a and 4b illustrate the frequency of executive stock option repricing among F500 firms from 1992-2000 and the cumulative percentage of adoption by F500 firms listed between 1992 and 2000, respectively.

Executive stock option repricing therefore provides a unique opportunity to examine how the interests of different organizational actors and the social influences carried by different institutional carriers will affect organizational adoption over time when a practice becomes more socially unacceptable. In this study, I examine the adoption of executive stock option repricing from 1992 to 2000. This period of observation covers the time when the practice started to proliferate until it was curtailed by accounting policy changes by the FASB.

In the following sections, I present hypotheses on the main effects of interests and carriers of institutional influences on adoption, followed by their dynamic effects on adoption as the degree of social acceptance of each practice changes over time.

EVOLVING EFFECTS OF INTERESTS ON ADOPTION

Theories of agency (Fama & Jensen, 1983; Jensen & Meckling, 1976; Ross, 1973), managerialism (Herman, 1981; Williamson, 1964), as well as power and politics (e.g., Cyert & March, 1963; March & Simon, 1958; Perrow, 1970, 1972) have argued that the interests of organizational actors and constituents are important determinants of adoption. In particular, the role of top managers have featured prominently in prior research (e.g., Wade et al., 1990; Westphal & Zajac, 1994). More recently, with the

growth of shareholders activism, researchers have turned their attention to the interests and influence of key shareholders, specifically institutional shareholders (e.g., Davis & Thompson, 1994; Sundaramurthy, 1996; Useem, 1996). Drawing on prevailing theories on agency and power, as well as ideas on the process of institutionalization, I develop hypotheses about how evolving degrees of social acceptance over time will moderate the effects of managerial and shareholders interests on the adoption of tender offer takeovers, poison pills, and executive stock option repricing.

Effects of Managerial Interests on Adoption

Literatures on power and politics have argued that powerful top managers are more likely to adopt practices that will further their self-interests rather than those of shareholders', unless they are properly governed by shareholders and their representatives or when managerial interests are properly aligned with those of shareholders (Eisenhardt, 1989; Fama & Jensen, 1983; Jensen & Meckling, 1976; Palmer et al., 1987). Prior research has examined the relative power of top managers (e.g., Mallette & Fowler, 1992; Wade et al., 1990; Westphal & Zajac, 1994) and managerial incentive structures (e.g., Davis, 1991; Dowen et al., 1994; Sundaramurthy, 1996) on the adoption of different practices. In the following sections, I develop hypotheses about the effects of managerial power and managerial incentives, proxied by managerial stock ownership, on the adoption the three practices over time.

Managerial Power

Researchers who emphasize the role of power and politics in organizational actions recognize the important influence of powerful top managers on adoption (e.g., Chance et al., 2000; Malatesta & Walkling, 1988; Wade et al., 1990; Westphal & Zajac, 1994, 1995). Political theorists regard the organization as a competitive arena in which

organizational actors continually struggle for resources and dominance (Perrow, 1970; Pfeffer, 1981; Pfeffer & Salancik, 1978). Adoption can therefore be understood as the exercise of power by dominant actors to further their self-interests (Palmer et al., 1993). Hence, political theorists predict that powerful top managers will be able to exploit their relative power and overcome any potential political and institutional barriers to adoption. Consequently, they are more likely to adopt practices that will bolster their power and further their self-interests (Perrow, 1970; Pfeffer, 1981; Pfeffer & Salancik, 1978).

In the case of tender offer takeovers, the relationship between managerial power and adoption has not been clearly identified or tested in prior studies. Prior accounts of hostile takeovers, however, suggest that powerful top managers may be more likely to adopt tender offer takeovers (Austin & Fishman, 1970; Hirsch, 1986; Palmer et al., 1995). Austin and Fishman (1970) observed that tender offer takeovers may be seen as glamorous and intriguing corporate competitions that could potentially enhance the prestige and status of top managers who are successful in taking over other organizations. Further, by taking charge of a larger, merged organization, top managers are likely to gain greater employment security and also enhance their personal wealth and prestige (Amihud & Lev, 1981; Baumol, 1959). Instances of hostile takeovers perpetuated by entrepreneurial individuals (e.g., corporate raiders like Saul Steinberg, Carl Icahn, and Boone Pickens) offer some anecdotal support for this observation (Hirsch, 1986; Palmer & Barber, 2001). Further, in their study of hostile corporate acquisitions in the 1960s, Palmer and his colleagues (2001) noted that firms that engage in hostile takeovers were typically commanded by powerful corporate leaders. Hence, powerful top managers may be more likely to adopt tender offer takeovers.

As for poison pills, it is argued that managerial power will be positively related to adoption (Davis, 1991). Poison pills are highly effective takeover defenses and their

adoption will allow top managers to effectively discourage takeover attempts, strengthen their positions, and secure their continual employments (Davis, 1991; Dowen et al., 1994; Malatesta & Walkling, 1988; Mallette & Fowler, 1992; Sundaramurthy, 1996). Given shareholders' opposition to the practice, top managers may need to rely on their relative power to surmount any potential resistance to adoption. Powerful top managers may therefore be more likely to adopt poison pills.

In the case of executive stock option repricing, it is also argued that managerial power will be positively related to adoption. Given that stock options make up a substantive portion of executive compensation, "underwater" or "out-of-the-money" stock options (which are essentially worthless) will drastically reduce an executive's compensation (Daily et al., 2002; Murphy, 1999). It is therefore in top managers' self-interests to reprice their stock options should these become "underwater" or "out-of-the-money" (Pollock et al., 2002). Given the active opposition to executive stock option repricing by shareholders and their interest groups (Byrne, 1998; Martinez, 1998), it is argued that powerful top managers are more likely to overcome opposition and reprice their stock options. Hence, I hypothesize that,

Hypothesis 1a / b / c (H1a/b/c): The greater the level of managerial power, the higher the likelihood a firm will adopt practices that will further managerial self-interests (e.g., tender offer takeovers, poison pills, and executive stock option repricing).

Political theorists, however, have paid little attention to how managerial power will affect adoption over time. In prior research, powerful top managers are assumed to be able and willing to exercise their power any time (e.g., Palmer et al., 1987; Wade et al., 1990), even though researchers, like Pfeffer and Salancik (1978) have argued that actors' interests and their ability to enact them are likely to change over time. This is

because managerial power is jointly determined by managerial, organizational, as well as environmental characteristics (Hambrick & Finkelstein, 1987; Pfeffer & Salancik, 1978); and environmental characteristics, in particular, are likely to change over time, and consequently, will influence managerial power and its effects on adoption (Dacin et al., 2002; Tolbert & Zucker, 1996). Given that the degrees of social acceptance for the three practices change in different ways over time, it is reasonable to predict that the effects of managerial power on adoption for each practice will correspondingly change in different ways over time.

In the case of tender offer takeovers, as the practice becomes more socially accepted over time, the effect of managerial power on adoption is likely to decrease. As Tolbert and Zucker (1983; 1996) explained in the process of institutionalization, early adoptions are strongly influenced by political forces that make organizations more or less open to the proposed change (March & Simon, 1958; Palmer et al., 1987). This is because early in the diffusion process, the absence of any social consensus on the appropriateness of a new practice makes the adoption decision a highly political process. Powerful top managers are therefore in a better position to overcome political barriers to adoption and adopt practices that are likely to further their self-interests. As such, managerial power will have important effects on early adoption when the practice is not socially accepted. However, as tender offer takeovers acquire objective meaning of appropriateness over time, adoption decisions become less political and the effects of managerial power on adoption will decline (DiMaggio & Powell, 1983; Tolbert & Zucker, 1996). Consistent with the concept of institutionalization (Tolbert & Zucker, 1983, 1996), as tender offer takeovers become more socially accepted and an institutional rationale for adoption is developed over time, political barriers to adoption will decrease, and in turn, the need to exercise power will decline. Consequently, this will lead to fewer

power effects as managerial power becomes less important in the adoption decision of socially accepted practices.

In the case of poison pills, given that the social acceptance for the practice remains relatively unchanged over time, the effect of managerial power on adoption is likely to remain stable. As Tolbert and Zucker (1983; 1996) explained, if a practice fails to become more institutionalized over time, then managerial power that determined early adoptions is likely to continue to predict adoption over time. This is because in the absence of any emerging social consensus about the appropriateness of the practice, adoption decisions will remain highly political and adoption decisions will continue to be strongly influenced by political forces that make organizations more or less open to the proposed change.

As for executive stock option repricing, as the practice becomes socially unacceptable over time, the effect of managerial power on adoption is likely to increase. Early in the diffusion cycle, when the practice is accepted (or at least, tolerated) as an incentive strategy towards retaining talented top managers, adoption decisions are less political and managerial power is less likely to be important in adoption decisions. However, as the practice becomes socially unacceptable over time, adoption decisions become more political in nature and top managers who wish to adopt the practice later in the diffusion cycle must rely heavily on their relative power to overcome any political and/or institutional opposition to the practice. As such, the effects of managerial power on adoption will increase over time. Hence, I hypothesize that,

Hypothesis 2a / b / c (H2a/b/c): Over time, the strength of the relationship between managerial power and adoption (a) decreases for practices that become more socially accepted (e.g., tender offer takeovers), (b) is stable for practices that do not

change in social acceptance (e.g., poison pills), and (c) increases for practices that become less socially accepted (e.g. executive stock option repricing).

Managerial Incentives – Managerial Stock Ownership

Agency theorists see the separation of ownership and control in large, publicly-traded corporations as a root cause of agency problems (Berle & Means, 1932; Fama & Jensen, 1983; Jensen & Meckling, 1976). With little ownership in the firm, top managers cannot enjoy the wealth benefits of their actions and consequently, their interests are likely to deviate from those of shareholders. To realign the interests of top managers with those of shareholders, agency theorists suggest that managerial incentives should be structured so that top managers can share in the long term performance of the firm. In particular, higher levels of managerial stock ownership is seen as an effective mechanism that will realign the interests of top managers with those of shareholders (Eisenhardt, 1989; Jensen & Meckling, 1976). More specifically, Murphy and Jensen (Jensen & Murphy, 1990; Murphy, 1999) argued that managerial stock ownership is a good indicator of managerial incentives and the severity of agency problems in organizations. In their study, they observed that CEO's stock ownership is likely to affect managerial self-seeking behaviors such that an increase in ownership level reduces the level of CEO's perquisite compensation. By allowing top managers to share in the wealth benefits of their decisions, stock ownership offers proper incentives and will realign the interests of top managers with those of shareholders. Hence, agency theorists argued that higher levels of managerial stock ownership will make it less likely that top managers will adopt practices that are likely to be detrimental to shareholders' interests.

In the case of tender offer takeovers, the relationship between managerial incentives and adoption has not been clearly identified or tested in prior studies. However, prior studies on corporate acquisitions (e.g., Amihud & Lev, 1981) suggest that

managerial incentives is likely to be negatively related to adoption of tender offer takeovers. Amihud and Lev (1981) observed that corporate acquisitions are likely to be motivated by managerial motives rather than efficiency concerns that will benefit the organization and its shareholders. Schnitzer (1996) observed that tender offer takeovers are generally more costly, less likely to be successful, and take much longer to complete when compared to friendly mergers. Hence, when managerial interests are not properly aligned with those of shareholders', through higher levels of stock ownership, top managers may be likely to engage in tender offer takeovers as a means to further their self-interests even if it is at the expense of shareholders.

In the case of poison pills, it is also argued that managerial incentives will be negatively related to adoption. Poison pills are highly restrictive and effective takeover defenses (Malatesta & Walkling, 1988). When adopted, they can effectively prevent takeover attempts and deny shareholders their rights to freely sell their shares for substantive returns (Davis, 1991; Dowen et al., 1994). At the same time, poison pills strengthen the positions of top managers by sheltering them from the disciplinary effects of the external market for corporate control (Fama, 1980; Fama & Jensen, 1983; Jensen, 1988). Hence, unless managerial interests are aligned with those of shareholders', through higher levels of stock ownership, top managers are likely to adopt poison pills (Davis, 1991).

In the case of executive stock option repricing, it is also argued that managerial incentives will be negatively related to adoption. Given that "out-of-the-money" or "underwater" stock options are essentially worthless, it is in the self-interests of top managers to reprice their stock options to improve their compensations (Brenner et al., 2000; Pollock et al., 2002). However, when top managers are provided with proper

incentives, their interests are not likely to diverge from those of shareholders', and they are less likely to adopt executive stock option repricing. Hence, I hypothesize that,

Hypothesis 3a / b / c (H3a/b/c/): The greater the level of managerial stock ownership, the lower the likelihood a firm will adopt practices that will further managerial self-interests (e.g., tender offer takeovers, poison pills, and executive stock option repricing).

Agency theorists, again, have paid little attention to how managerial incentives will affect adoption over time. Extant studies are implicitly static. Managerial interests are either aligned or not; and once aligned, top managers are expected to take actions that are consistent with the interests of shareholders all the time. However, this assumption is not reasonable as the interests of social actors are likely to be influenced by changes in the institutional environment (Barley & Tolbert, 1997; Tolbert & Zucker, 1983, 1996). Given that the degrees of social acceptance for the three practices change in different ways over time, it is reasonable to expect the effects of managerial incentives on adoption for each practice to change in different ways over time.

In the case of tender offer takeovers, as the practice becomes more socially accepted over time, the effect of managerial incentives on adoption is likely to decrease. According to Tolbert and Zucker (1983, 1996), at the onset of the diffusion process, adoptions of the new practices are largely the result of independent organizational activities that make an innovation attractive for adoption. These would include managerial incentives that align managerial interests with those of shareholders. Hence, early on when social acceptance for tender offer takeovers is low, top managers can be expected to evaluate and make adoption decisions based on the degree to which their interests are aligned with those of shareholders. However, as the practice becomes more socially accepted over time, adoption decisions are more likely to be driven by the

emerging positive social consensus and less likely to be influenced by the deliberate evaluations of managerial interests and incentives. Consequently, adoptions in the later stages of the diffusion cycle are less likely to be explained by managerial stock ownership.

In the case of poison pills, given that the social acceptance for the practice remains relatively unchanged over time, the effect of managerial incentives on adoption is likely to remain stable. When the practice fails to become more socially accepted over time, then managerial incentives which are important in early adoption decisions are likely to still influence later adoptions. This is because in the absence of any emerging social consensus about the appropriateness of the practice, adoption decisions will continue to be driven by organizational characteristics that make a practice attractive for adoption, including the degrees to which managerial interests are aligned to those of shareholders' through managerial stock ownership. Hence, the effects of managerial incentives on adoption will remain stable over time.

As for executive stock option repricing, as the practice becomes clearly unacceptable over time, the effect of managerial incentives on adoption is likely to increase. Early in the diffusion cycle, when the practice is accepted (or at least, tolerated) as an incentive strategy, adoption decisions are less likely to be driven by the independent activities of organizations that make the practice more or less attractive to top managers, including managerial incentives. However, as the practice becomes socially unacceptable over time, the degree to which managerial incentives are properly aligned with those of shareholders will become more important in adoption decisions. As such, the effects of managerial incentives on adoption will become particularly strong later on. Hence, I hypothesize that,

Hypothesis 4a / b / c (H4a/b/c): Over time, the strength of the relationship between managerial incentives and adoption (a) decreases for practices that become more socially accepted (e.g., tender offer takeovers), (b) is stable for practices that do not change in social acceptance (e.g., poison pills), and (c) increases for practices that become less socially accepted (e.g. executive stock option repricing).

Effects of Shareholders' Interests on Adoption

With the structural transformation of American corporations in the wake of the 1980s corporate takeover wave, the influence of shareholders interests on organizational actions has attracted much attention (Davis & Stout, 1992; Fligstein, 1990, 1991; Useem, 1996). In particular, the role of institutional shareholders in corporate governance has featured prominently in recent studies (David et al., 1998; Davis, 1991; Davis & Greve, 1997; Davis & Thompson, 1994; Mallette & Fowler, 1992; Palmer et al., 1993; Porac et al., 1999; Sundaramurthy, 2000).

Institutional Shareholders' Influence – Institutional Ownership

Agency and political theorists believe that shareholders' interests will prevail over managerial self-interests only when shareholders have the ability to govern managerial actions (Fama & Jensen, 1983; Jensen & Meckling, 1976; Palmer et al., 1987). In organizational research, institutional shareholders are observed to have both the motivation as well as the ability to exert their influence on top managers, and thereby, safeguard their self-interests (David et al., 1998; Sundaramurthy, 1996). Drawing on agency and power arguments, researchers posit that institutional shareholders influence, proxied by institutional stock ownership, will be negatively related to the adoption of practices that are likely to compromise shareholders' interests (e.g., David et al., 1998; Davis & Thompson, 1994; Mallette & Fowler, 1992; Porac et al., 1999; Sundaramurthy,

2000). This is because institutional shareholders with higher proportion of stock ownership will be able to exercise greater influence over top managers and prevent them from adopting practices that are likely to compromise shareholders' interests.

In the case of tender offer takeovers, institutional shareholders' preferences has not been clearly identified or tested in prior studies (Davis & Stout, 1992). However, it is reasonable to assume that shareholders may be less likely to prefer tender offer takeovers to other corporate acquisition strategies. This is because tender offer takeovers, when compared to friendly mergers, are generally more costly, less likely to be successful, and take much longer to complete (Schnitzer, 1996). Further, shareholders recognize that corporate acquisitions, including tender offer takeovers, may be driven by managerial self-interests rather then efficiency considerations that will advance shareholders' wealth and value (Amihud & Lev, 1981). As such, institutional shareholders are likely to be wary of tender offer takeovers. Hence, it is reasonable to argue that institutional shareholders influence will be negatively related to the adoption of tender offer takeovers.

In the case of poison pills, prior studies have argued that institutional shareholders influence will be negatively related to adoption. Poison pills are highly effective takeover defenses and their adoptions are often seen as attempts by top managers to entrench their positions and further their self-interests at the expense of shareholders' interests (Davis, 1991; Dowen et al., 1994; Malatesta & Walkling, 1988; Mallette & Fowler, 1992; Sundaramurthy, 1996). As such, poison pills are actively opposed by institutional shareholders and shareholders interests groups (McGurn, 2001; Velasco, 2002). For example, institutional shareholders like the College Retirement Equity Fund have actively opposed the adoption of poisons pills (Davis, 1991). Drawing on agency

arguments, researchers propose that organizations with powerful institutional shareholders are less likely to adopt poison pills.

As for executive stock option repricing, consistent with theory of power and politics (Perrow, 1972), institutional shareholders' influence is likely to be negatively related to adoption. Shareholders have been highly critical of executive stock option repricing. They believe that repricing executive stock options merely reward top managers for their failures (Byrne, 1998; Martinez, 1998). Powerful institutional shareholders are therefore in a better position to monitor and govern managerial actions and prevent the adoption of executive stock option repricing (Pollock et al., 2002). Hence, I hypothesize that,

Hypothesis 5a / b / c (H5a/b/c): The greater the level of institutional shareholder influence, the lower the likelihood a firm will adopt practices that will further managerial self-interests (e.g., tender offer takeovers, poison pills, and executive stock option repricing).

Again, the ways in which institutional shareholders might affect adoption over time has received little attention. In prior research, the ability of powerful institutional shareholders to exercise their influence and safeguard their self-interests is assumed to be stable over time. This assumption is not reasonable as changes in the environment are likely to affect the institutional shareholders' interests as well as their relative power with top managers (Hambrick & Finkelstein, 1987; Tolbert & Zucker, 1996). Given that the degrees of social acceptance of the three practices change in different ways over time, it is reasonable to expect the effects of institutional shareholders influence on adoption to correspondingly change differently over time.

In the case of tender offer takeovers, as the practice becomes more socially accepted over time, the effect of institutional shareholders influence on adoption is likely

to decrease. As Tolbert and Zucker (1983; 1996) explained, in the absence of any social consensus about the appropriateness of a practice, early adoptions are strongly influenced by political forces that make organizations more or less open to the proposed change (Cyert & March, 1963; March & Olsen, 1975; Pfeffer, 1981). Hence, early in the diffusion cycle, adoption decisions are likely to be determined by the relative power between top managers and shareholders and powerful institutional shareholders will be in a better position to intervene and prevent the adoption of tender offer takeovers. However, as tender offer takeovers become more socially accepted and an institutional rationale for adoption is developed over time, the basis on which institutional shareholders are able to resist its adoption is likely to be weakened. Top managers are able to draw on the logic of appropriateness to justify their decisions to adopt tender offer takeovers (March & Olsen, 1984). As such, institutional shareholders' influence becomes less important in adoption decisions over time as the practice becomes more socially accepted.

In the case of poison pills, given that the social acceptance for the practice remains relatively unchanged over time, the effect of institutional shareholders influence on adoption is likely to remain stable. As Tolbert and Zucker (1983; 1996) explained, when a practice fails to become more socially accepted over time, then the relative power of shareholder that influence early adoption is likely to continue to predict adoption over time. This is because in the absence of any emerging social consensus about the appropriateness of the practice, adoption decisions will remain highly political. Hence, the effects of institutional shareholders influence on adoption will remain stable over time.

As for executive stock option repricing, as the practice becomes socially unacceptable over time, the effect of institutional shareholders influence on adoption is

likely to increase. Early in the diffusion cycle, when the practice is accepted (or at least, tolerated) as an incentive strategy towards retaining talented top managers, adoption decisions are less political and institutional shareholders are less likely exert their influence on adoption decisions. However, as social resistance to the practice grows, adoption decisions will become more political and institutional shareholders will have greater incentives to exercise their influence to resist the practice. Further, they can rely on the decreasing social acceptance to muster greater opposition against the practice. Consequently, the effect of institutional shareholders' influence on adoption will become more important over time as it become more socially unacceptable. Hence, I hypothesize that,

Hypothesis 6a / b / c (H6a/b/c): The strength of the relationship between institutional shareholder influence and adoption (a) decreases for practices that become more socially accepted (e.g., tender offer takeovers), (b) is stable for practices that do not change in social acceptance (e.g., poison pills), and (c) increases for practices that become less socially accepted (e.g. executive stock option repricing).

EVOLVING EFFECTS OF CARRIERS OF INSTITUTIONAL INFLUENCE ON ADOPTION

Institutional theory emphasizes the role of social norms and legitimacy in driving organizations, and the individuals in them, to adopt practices that are deemed socially appropriate or regarded as the routine way of doing things (DiMaggio & Powell, 1983; Scott, 2001). By adopting institutionalized practices, an organization can demonstrate that it is adhering to socially valued norms and expectations (Meyer & Rowan, 1977; Scott, 2001; Tolbert & Zucker, 1983). Building on the ideas of institutionalization and interorganizational networks, I develop hypotheses about how evolving degrees of social

acceptance over time will moderate the effects of carriers of institutional influences on the adoption of tender offer takeovers, poison pills, and executive stock option repricing.

Effects of Relational Carriers on Adoption

Institutional theory (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Zucker, 1977), network theory (Burt, 1987; Freeman, 1977), and the literature on diffusion of innovation (Coleman et al., 1966; Rogers, 2003; Ryan & Gross, 1943) have emphasized the role of relational carriers of social influences on adoption. These literatures suggest that social information and normative values transmitted through relational ties to prior adopters will influence the likelihood of subsequent adoptions.

Social Ties – Board Interlocks to Prior Adopters

Institutional and network theorists see the social network of interlocking directorates among the largest U.S. companies as an important institutional carrier of social information, norms, and legitimacy (Davis, 1991; Mizruchi, 1996; Scott, 2001), and consequently, an important determinant of adoption. When top managers are required to make decisions about the adoption of a practice, they are likely to turn to others who have prior experience with the practice (Coleman et al., 1966). Through such social interactions, top managers will acquire social information about the practice and form a normative understanding of its usefulness and/or appropriateness in the prevailing social context (Burt, 1987). While there may be other sources of information, it is often the information offered by direct, strong, or embedded ties that is most likely to be received, trusted, and acted upon (Uzzi, 1997). In particular, institutional and network researchers have focused on the formal ties among top executives established through corporate board interlocks. Prior studies have shown that corporate board interlocks are effective channels through which the exchange of information as well as social

expectations are transmitted (Davis, 1991; Haunschild, 1993; Mizruchi, 1996; Westphal et al., 1997). When top managers and directors of an organization are highly interconnected to organizations that have adopted a practice, then it is likely that the organization will also come to see the practice as an appropriate behavior and adopt the same practice for itself.

In the case of tender offer takeovers, it is argued that social ties to prior adopters will be positively related to adoption. Tender offer takeover is a complex and contentious corporate acquisition strategy. To decide on its adoption, an organization is likely to turn to others who have prior experience with the practice (Coleman et al., 1966). Relational ties to prior adopters is therefore an important source of social information and influence (Burt, 1987; Coleman et al., 1966; Scott, 2001). Through frequent and empathic interactions with prior adopters, top managers are likely to acquire useful information about tender offer takeovers and learn about its social appropriateness among other corporate leaders (Burt, 1987). The more an organization is exposed to tender offer takeovers through its board interlocks, the more likely it will learn about the practice and come to see it as an appropriate approach to corporate acquisition (Castellucci & Haunschild, 2004). Consequently, the higher the number of prior adoptions by interlocked firms, the more likely a firm will also adopt the practice for itself.

In the case of poison pills, it is again argued that social ties to prior adopters will be positively related to adoption. Poison pills are complicated anti-takeover defense that are favored by top managers but opposed by shareholders (McGurn, 2001; Velasco, 2002). As Davis (1991) explained, relational ties to prior adopters of poison pills create the opportunity for top managers to learn vicariously from the experiences of others. Further, the more a firm is connected to others who have adopted poison pills, the more

likely it will come to see the practice as an appropriate anti-takeover defense mechanism, and thereby, more likely to adopt the same practice.

In the case of executive stock option repricing, it is also argued that social ties to prior adopters will be positively related to adoption. Given criticisms over the social legitimacy of executive stock option repricing, top managers are likely to turn to others who have prior experience with the practice (Coleman et al., 1966). A firm that is highly connected to other firms that have repriced their stock option is likely to perceive the practice as socially accepted, or at least, use this as a justification for adopting the practice. It is therefore likely that social ties to prior adopters will be positively related to the adoption of executive stock option repricing. Hence, consistent with the arguments presented in earlier studies by Davis (1991) and Castellucci & Haunschild (2004), I hypothesized that,

Hypothesis 7a / b / c (H7a/b/c): The greater the number of social ties to prior adopters, the higher the likelihood a firm will adopt the same practice (e.g., tender offer takeovers, poison pills, and executive stock option repricing).

While researchers recognize that institutional influences are likely to change over time (Barley & Tolbert, 1997; Tolbert & Zucker, 1983, 1996), prior research has paid little attention to this possibility (for exceptions, see Castellucci & Haunschild, 2004; Young et al., 2001). Implicit in the ideas on institutionalization is that carriers of institutional isomorphism should become increasingly influential predictors of adoption over time when a practice becomes progressively legitimated and institutionalized (Tolbert & Zucker, 1983, 1996). Early in the diffusion process, the absence of any social consensus regarding a practice makes social ties less effective as conduits of social influence. When the practice is not socially accepted, social actors are not likely to openly talk about it. Further, prior adoptions by social ties will contradict the prevailing

social attitude and firms are not likely to attend to and rely on these actions in their adoption decisions. However, when social acceptance for the practice increases, prior adoptions by social ties will validate the emerging social attitude and the force of the social influence carried by these actions will be strengthen. As the practice is more openly discussed among social actors, social information becomes more salient, more effectively communicated, and more likely to be relied upon by others in their adoption decisions. Given that the degrees of social acceptance for the three practices change in different ways over time, it is likely that the effects of social ties on adoption for each practice will correspondingly change in different ways over time.

In the case of tender offer takeovers, as the practice becomes more socially accepted over time, the effect of social ties to prior adopters on adoption is likely to increase. As Tolbert and Zucker (1996, p. 181) explained, while organizations may draw on the information obtained through their social ties and imitate the behaviors of firms they are connected to in the early stages of diffusion, there will be "little sense of the necessity of this among organizational decision-makers, since there is no consensus on the general utility of the innovation". It is only when tender offer takeovers have become more socially accepted as an appropriate strategy to corporate acquisitions over time that social ties to prior adopters are likely to serve as effective conduits for social information and influence. This is because prior adoptions by interlocked firms will validate the social consensus regarding the practice and the force of the social influence carried by these actions will be strengthened. Further, when the practice becomes more socially accepted, it will be more openly discussed among top managers and directors. This will make the practice and its related information more salient and more likely to be effectively communicated through the board interlock network. Organizations are therefore more likely to attend to and rely on the social information and influences

communicated through their social ties. As such, social ties to prior adopters will become more important in adoption decisions of tender offer takeovers over time.

In the case of poison pills, given that the social acceptance for the practice remains relatively unchanged over time, the effect of social ties to prior adopters on adoption is likely to remain stable. In the absence of any consensus regarding the social acceptance of the practice, the effectiveness of social ties to prior adopters as conduits of social information and influence will not change. Consequently, the effects of social ties on adoption will remain stable over time.

As for executive stock option repricing, as the practice becomes socially unacceptable over time, the effect of social ties to prior adopters on adoption is likely to decrease. Early in the diffusion cycle, when the practice is accepted (or at least, tolerated) as an incentive strategy, adoption decisions are more likely to be influenced by the prior adoption of social ties because top managers and directors are more likely to openly talk about the practice. This will make the practice and its related information more salient and more likely to be effectively communicated through the board interlock network. As such, prior adoptions by interlocked firms are more likely to convey social information and influence that will subsequently affect adoption. However, as the practice becomes more socially unacceptable over time, top managers and directors are less likely to openly talk about the practice. The practice become less salient within the social network and information about it is less effectively communicated since such prior adoptions by interlocked firms will contradict the existing social attitude. As such, organizations are less likely to rely on the information communicated through these actions. In the face of decreasing social acceptance, prior adoptions by social ties will not carry much, if any, social influence. Consequently, social ties to prior adopters become less important in adoption decisions over time. Hence, I hypothesize that,

Hypothesis 8a / b / c (H8a/b/c): The strength of the relationship between social ties to prior adopters and adoption (a) increases for practices that become more socially accepted (e.g., tender offer takeovers), (b) is stable for practices that do not change in social acceptance (e.g., poison pills), and (c) decreases for practices that become less socially accepted (e.g. executive stock option repricing).

Effects of Symbolic Carriers on Adoption

Research defined within institutional and network theory has also emphasized the role of symbolic carriers of institutional isomorphism on adoption (Burt, 1987; Davis, 1991; DiMaggio & Powell, 1983). As Scott (2003, p. 882) explained, symbolic carriers of institutional isomorphism include "various types of symbolic schemata into which meaningful information is coded and conveyed." These literatures suggest that symbolic understanding of social information, carried by the actions of other actors in the absence of relational ties, will also influence the likelihood of adoption. More specifically, they argue that the greater a firm's exposure to institutional pressures carried through the symbolic actions of others, the more likely the firm will adopt the same practices because the practice have become recognized as socially appropriate or the routine way of do things within the social system (DiMaggio & Powell, 1983; Strang & Meyer, 1993).

Prestigious Endorsement

Institutional isomorphism has also been shown to be carried by prestigious endorsement that occurs when high-status, well-respected, and successful organizations adopt a practice. DiMaggio and Powell (1983) argued that in situations of uncertainty, organizations are likely to imitate the behaviors of organizations that they perceived to be more prestigious, legitimate, and successful (Burns & Wholey, 1993; Davis & Greve, 1997). The adoption of a practice by a prestigious firm offers a legitimating account or

endorsement for the practice and this is likely to contribute to its diffusion across a social system (Coleman et al., 1966; Loh & Venkatraman, 1992; Rogers, 2003; Strang & Meyer, 1993). Through these actions, an organization develops an understanding about the perceived usefulness and/or social appropriateness of organizational practices, and in turn, makes its own decisions to adopt based on these socially-constructed understandings. Prior adoptions by prestigious firms are likely to affect adoption because prestigious firms that have adopted a practice may actively endorse the practice as part of their effort to manage impressions and enhance their social status. Also, less prestigious firms are likely to be influenced by the prior actions of prestigious firms because they try to emulate these firms in the hope of achieving the same level of prestige as these high-status firms (Burns & Wholey, 1993). Hence, prior adoptions by prestigious firms are likely to communicate to other firms that a practice is normatively appropriate, or at least socially acceptable, and this is likely to increase the likelihood that other firms will also adopt the same practices for themselves.

In the case of tender offer takeovers, it is argued that prestigious endorsement will be positively related to adoption. Initially regarded as a deviant and illegitimate approach to corporate acquisition, the adoption of tender offer takeovers by prestigious firms can provide an important endorsement for this acquisition strategy. By observing the incidence of tender offer takeovers engaged by prestigious firms, an organization can learn about the appropriateness of this practice as perceived by corporate elites in the U.S. economy. The historical account of hostile takeovers presented by Hirsch (1986) provides some support for this argument. When large and established firms in the oil and tobacco industry began to adopt hostile takeovers in the late 1970s, other companies in the established business community started to adopt the practice for themselves. Hence,

as the number of tender offer takeovers adopted by prestigious firms increase, other organizations may be more likely to adopt the practice for themselves.

In the case of poison pills, it is also argued that prestigious endorsement will be positively related to adoption. No prior studies have directly examined the influence of prestigious endorsement on the adoption of poison pills. However, as Davis (1991) suggested, organizations will try to learn vicariously from the experiences of others when they need to make decisions under uncertainty. Further, as DiMaggio and Powell (1983) argued, organizations are likely to look towards the behaviors of organizations that they perceived to be more prestigious. Given the potential agency issues surrounding poison pills, organizations are likely to look at the prior actions of prestigious firms to gain greater understanding about practice. Hence, the adoptions of poison pills by prestigious firms are likely to communicate important social information and influences, and consequently, encourage other firms to adopt the practice for themselves.

In the case of executive stock option repricing, it is again argued that prestigious endorsement will be positively related to adoption, even though no prior studies have examined its effect on adoption. Executive stock option repricing is a controversial practice that is shrouded with agency issues. Organizations that are concerned with its appropriateness will likely turn to the actions of other firms for reference. In particular, the actions undertaken by prestigious firms are likely to attract attention in situations of uncertainty (DiMaggio & Powell, 1983). Hence, it is reasonable to expect a firm to be more likely to adopt executive stock option repricings when prestigious firms have already adopted the practice. Hence, I hypothesize that,

Hypothesis 9a / b / c (H9a/b/c): The greater the level of prestigious endorsement, the higher the likelihood a firm will adopt the same practice (e.g., tender offer takeovers, poison pills, and executive stock option repricing).

The temporal effects of prestigious endorsement on adoption are again not well articulated, even though researchers recognize that the effects of carriers of institutional influences, like prestigious endorsements, are likely to change over time (Barley & Tolbert, 1997; Tolbert & Zucker, 1983, 1996). As explained earlier, carriers of institutional isomorphism are likely to become increasingly important predictors of adoption over time as a practice becomes progressively legitimated and institutionalized (Tolbert & Zucker, 1983, 1996). When social consensus concerning the appropriateness of a practice emerges, prior adoptions by prestigious others are likely to become more effective conduits of social influences and thereby exert greater influence on adoption. This is because early adoptions by prestigious firms, while contributing to the institutionalization process, are not likely to carry much social influence on the adoption behaviors of other firms in the absence of any consensus about the social acceptance of the practice. While researchers have observed that the adoption of a new practice by prestigious firms may endorse the practice and contribute to its diffusion within a social system (Coleman et al., 1966; Loh & Venkatraman, 1992; Strang & Meyer, 1993), there is little sense in imitating the actions of these firms when the practice has not yet attained wide social acceptance (Tolbert & Zucker, 1996). This is because firms with lower status are likely to be more dependent on their environment for critical resources and are therefore less willing and/or able to imitate the actions of prestigious firms when these actions are not social accepted by their key constituents. However, when a practice becomes more socially accepted, the prior actions of prestigious firms will serve to validate and endorse a practice and lower status firms will become more responsive to the actions of these firms, as they aspire to attain the same level of prestige, and can use such prior adoptions to support their own adoptions (Burns & Wholey, 1993; Fombrun & Shanley, 1990). Hence, low status firms are more likely to attend to and emulate the

adoption behaviors of prestigious firms as the practice becomes more socially accepted. Given that the degrees of social acceptance for the three practices change in different ways over time, it is reasonable to expect the effects of prestigious endorsement on adoption for each practice to correspondingly change in different ways over time.

In the case of tender offer takeovers, as the practice becomes more socially accepted over time, the effect of prestigious endorsement on adoption is likely to increase. Early in the diffusion cycle when social acceptance is low, prior adoptions by prestigious others are not likely to carry much social influence as these actions contradict the prevailing social attitude. As such, other firms are less likely to attend to and rely upon these actions in their adoption decisions since their constituents are likely to object to the practice. Firms with lower status will therefore be less willing or able to imitate the prior adoption of prestigious firms when the practice is not socially accepted. However, as the practice begins to develop some degree of social acceptance, then social influence communicated by the prior adoptions of prestigious firms will become stronger since they validate and reaffirm the emerging social consensus. Consequently, prior adoptions by prestigious firms are more likely to be attended to and rely upon by other lower status firms in their adoption decisions. This is because when there is a general consensus that the practice is appropriate, prior adoptions by prestigious firms validates the emerging social consensus and the force of the social influence carried by these actions will be strengthened. Hence, the social influence carried by prestigious endorsement is argued to build up over time, concomitant with increasing social acceptance of the practice, and will positively influence adoption over time.

In the case of poison pills, given that the social acceptance for the practice remains relatively unchanged over time, the effects of prestigious endorsement on adoption are likely to remain stable. In the absence of any consensus regarding the social

acceptance of the practice, the effectiveness of prior adoptions by prestigious firms as conduits of social information and influence will not change. Consequently, the effects of prestigious endorsement on adoption will remain stable over time.

As for executive stock option repricing, as social acceptance of the practice decreases over time, the effects of prestigious endorsement on adoption will decrease. Early in the diffusion cycle, when the practice is accepted (or at least tolerated) as an incentive strategy, adoptions are more likely to be influenced by the prior adoption of prestigious firms since these actions serve to validate the prevailing social attitude towards the practice. However, as the practice becomes less socially accepted over time, prior adoptions by prestigious firms will become less effective conduits of social information and influence. This is because these prior adoptions will appear to contradict the emerging negative social attitude towards the practice and organizations will be less likely to rely on the information communicated by these actions. This is because firms with lower status may be less willing and able to imitate the actions of such large, successful firms when the practice is not socially accepted and regarded as illegitimate. In the face of decreasing social acceptance, prior adoptions by prestigious firm may not carry much, if any, social influence. Consequently, prior adoptions by prestigious firm will become less important in adoption decisions over time. Hence, I hypothesize that,

Hypothesis 10a / b / c (H10a/b/c): The strength of the relationship between prestigious endorsements and adoption (a) increases for practices that become more socially accepted (e.g., tender offer takeovers), (b) is stable for practices that do not change in social acceptance (e.g., poison pills), and (c) decreases for practices that become less socially accepted (e.g. executive stock option repricing).

In this chapter, I have developed dynamic hypotheses about the effects of interests and carriers of institutional influences on adoption across three practices that have

become varyingly diffused and socially accepted over time. In the following chapter, I describe the research method used to test these hypotheses and the results from the analyses.

CHAPTER FOUR: RESEARCH METHODOLOGY AND RESULTS

In this chapter, I describe the research design and methods used in this study and present the results of my analyses. First, I explain the sampling technique used and describe the samples for each practice. Second, I describe the data sources from which information on the three practices and the sampled firms are collected. Third, I describe the measures for my dependent, independent, and control variables. Fourth, I explain the statistical methods used to test the hypotheses. Last, I describe and explain the results of my analyses.

SAMPLING TECHNIQUE AND SAMPLE

In this study, I examine the adoption of tender offer takeovers, poison pills, and executive stock option repricing using three separate samples drawn from the lists of *Fortune 500 Largest U.S. Industrials* (F500) between 1980 and 2004. This time period is chosen because it covers the important stages of the diffusion process for each of the practices and provides the best available data on them. The sample frame consists of the population of F500 companies listed between 1980 and 2004, but excludes all companies that are not publicly traded. This is because neither the theoretical arguments presented nor the practices examined in this study apply to such firms. Non-publicly traded firms include agricultural cooperatives, such as Mid-America Dairyman, as well as wholly owned foreign subsidiaries, such as Lever Brothers, and joint ventures, such as Dow Corning.

I used the following technique to create each of the samples in this study. For tender offer takeovers, I randomly selected 150 adopting companies from all adopting F500 companies between 1980 and 2004. I also randomly selected 150 non-adopting companies from all non-adopting F500 companies over this time period. The time period

is chosen for two reasons. First, this is the period in which the hostile approach to corporate acquisition diffused and became generally accepted by the largest U.S. companies (Castellucci & Haunschild, 2004; Hirsch, 1986). Second, this period offers the best available database on corporate acquisitions.

For poison pills, I used the same sampling technique to randomly select 150 adopting companies and 150 non-adopting companies between 1984 and 2004. Again, this time period is chosen because it is the period in which poison pills were first introduced into and subsequently diffused across the population of the largest U.S companies (Davis, 1991) and it also provides the best available database on poison pills. For executive stock option repricing, given the small number of repricing events by F500 companies, I selected all 50 adopting companies and randomly selected 70 non-adopting companies between 1992 and 2000. This time period corresponds to when executive stock option repricing began to proliferate under normal business conditions (Brenner et al., 2000) and offers the best available database on repricing. Over each of the respective observation windows, annual data is collected for each firm from the time it enters the sample until it leaves, because either an adoption event has occurred or when it is right-censored (i.e., there is no adoption event up to when a firm ceases to exist or until the end of the observation window).

DATA SOURCES

Several data sources were used to collect information on the practices and the companies in the samples. I describe each of the data sources in the following sections.

Tender Offer Takeovers

Data on tender offer takeovers are collected from the *Securities Data Corporation* (SDC) database on *Mergers and Acquisitions*. The SDC database contains tender offer

takeover attempts from 1978 to date. In this study, I record all instances in which a tender offer takeover is made regardless of whether the takeover attempt is successful or not; or whether the takeover attempt is accepted by the target's management (i.e., unsolicited but friendly) or rejected by the target's management (i.e., unsolicited and hostile) from 1980 to 2004. I include all these events because my theory is about why a firm chooses to undertake an unsolicited approach to corporate acquisitions when other acquisition strategies are available, and not about whether such an approach is accepted or rejected by the target firm's management[2] or if it is successful or not.

Earlier research has observed that the SDC data on corporate acquisitions until 1985 is not complete (Castellucci & Haunschild, 2004). To construct a more accurate database of tender offer takeovers, I also included data on tender offer takeovers from the *Austin Tender Offer Statistics* (ATOS), a database containing annual listing of all tender offers takeovers that was published from 1971 to 1986. The information in both SDC and ATOS are compiled primarily from corporate filings to the Securities and Exchange Commission (SEC) and corporate annual reports. The ATOS database also contains information compiled from various sources including *Moody's*, *Standard & Poor's, Dun & Bradstreet's*, *Funk & Scott's* and the *Wall Street Journal*. Together, the SDC and ATOS databases provided a comprehensive record of tender offer takeovers made over the period of observation.

Poison Pills Takeover Defense

Data on poison pills takeover defense are collected from the *Securities Data Corporation* (SDC) database on *Corporate Governance*. The SDC database contains all

2 Data on whether a tender offer takeover is deemed hostile or friendly was collected and included as a control in a supplementary analysis. Model fit improved significantly and the results were unchanged except for the interaction of institutional ownership and time clock. In this case, the significance level dropped from $\rho \leq .05$ to $\rho \leq .01$.

poison pills adoptions by U.S. firms from 1983 to date. In this study, I record all cases of poison pills adoption from 1984 to 2004. The information in SDC is compiled primarily from corporate filings to the Securities and Exchange Commission (SEC) and corporate annual reports. The information from the SDC database for earlier time periods (1984-1989) are checked against the poison pills data used by Davis and his colleagues (Davis, 1991; Davis & Greve, 1997). Their data, from 1984-1989, was provided by the Corporate Governance Service of the Investor Responsibility Research Center (IRRC), a non-for-profit institution that monitors and reports on issues of interests to the investor community.

Executive Stock Option Repricing

Data on executive stock option repricing are collected from the *Standard and Poor's* (S&P's) database on *Executive Compensation* (EXECUCOMP). The EXECUCOMP database reports annual compensation data for the top five officers in a sample of 1500 firms, including those companies in the S&P 500, the S&P MidCap 400, and the S&P SmallCap 600. The database contains information on executive stock option repricing from 1992 to date. The information in EXECUCOMP is compiled from corporate filings to the Securities and Exchange Commission (SEC). In this study, I record all instances in which a F500 firm repriced its executives' stock options from 1992 to 2000. While executive stock option repricing did occur in early time periods (i.e. prior to 1990) (Gilson & Vetsuypens, 1993; Saly, 1994), prior research suggests that these are dissimilar in nature to subsequent repricing events that occurred during the 1990s (Brenner et al., 2000) and are therefore not included in my study. More specifically, repricing events before 1990 were mostly adopted under situations of dire financial distress (i.e., bankruptcies) or major economic jolts (i.e., stock market crash), while repricing after 1990 were mostly adopted under normal business conditions. Further,

because companies were not required to report executive stock option repricing before 1992, no systematic, reliable data is available and data on repricing is collected only from 1992 to 2000.

Company Information

Financial data for the F500 companies are collected from COMPUSTAT. Specific data sources for the other variables are described together with their respective measures.

MEASUREMENT OF VARIABLES

In the following sections, I describe the measures for the dependent variable, independent variables, and control variables. A summary of these variables, their measures, and their respective sources are presented in Table 2. Further, I include a summary of the variables associated with each practice in Table 3.

Dependent Variable

Organizational Adoption

In this study, the term *organizational adoption* refers to a focal firm's first decision to use an organizational practice within the respective periods of observation. Adoption is treated as a unique, discrete event and it is recorded using a dichotomous variable. It records whether or not a practice is adopted during each annual spell over the window of observation. When a practice is adopted in a given annual spell, the variable is recorded as 1. Otherwise, it is recorded as 0. In my analysis, only the first adoption of a practice is taken into account and no repeated events are included. This is because the first adoption represents a distinct transition from one state (i.e., non-adopter) into another (i.e., adopter) and is conceptually of interest to this study. Subsequent re-adoptions of a practice, wherever possible, do not represent this distinct transition and are

not included in this study. However, data on subsequent adoptions of tender offer takeovers and executive stock option repricing have been collected and will be used in future analyses.

Independent Variables

Managerial Power

Following the literature on corporate governance, I use a number of indicators to measure managerial power relative to the board of directors (Pollock et al., 2002; Wade et al., 1990; Westphal & Zajac, 1994), focusing on the relative power of the CEO. I use the following measures: (1) CEO tenure; (2) CEO and board chair duality, (3) number of outside directors appointed after the CEO, and (4) proportion of inside to outside directors on the board. While multiple indicators of managerial power are preferred, I also combined the individual indicators to create a composite measure of CEO power using the summed of their z-scores. This is simply a data reduction technique used to aggregate the indicators and to facilitate the analysis of the data given the limited number of adoption events for some of my practices (especially, in the case of executive stock option repricing). The composition method of summed z-scores is used because these multiple indicators are generally recognized as formative indicator—measures that "jointly influence the composite latent construct, and meaning emanates from the measures to the construct in the sense that the full meaning of the composite latent construct is derived from its measures"—rather than reflective indicators (Bollen & Long, 1993; MacCallum & Browne, 1993; MacKenzie, Podsakoff, & Jarvis, 2005, p. 712). As formative indicators, they are not assumed to be caused or determined by the construct and they are not assumed to required to be correlated (Bollen & Long, 1993). A potential limitation of using summed z-scores is that it assumes equal weightings for each

indicator of CEO power. However, given no theoretical basis for alternate weightings, the method used is appropriate. Further, prior research has shown that equal weighting of indicators may produce results that are similar to more complex weighting schemes (Schmidt & Kaplan, 1971; Stanley & Wang, 1970). I use the composite measure in my primary analysis reported herein. However, in secondary analyses, I also include the four indicators individually for tender offer takeovers and poison pills.

CEO Tenure. Prior studies suggest a positive relationship between CEO tenure and the power CEOs have over the board of directors (e.g., Finkelstein & Hambrick, 1989; Ocasio, 1994). It is argued that as CEO tenure increases, CEOs are able to acquire personal power by: (1) gaining expert knowledge of the firm's resources and processes (Singh & Harianto, 1989), and (2) populating the board with loyal supporters (Fredrickson, Hambrick, & Baumrin, 1988). *CEO tenure* is measured as the number of years the CEO has served at the beginning of each year.

CEO and Board Chair Duality. CEOs who also serve as chair of the board of directors are argued to have greater status and influence among board members. By serving as CEO and chair, these CEOs can hamper the board's ability to independently monitor and control the actions of top management (Beatty & Zajac, 1994). *CEO/Board chair duality* is recorded using a dichotomous variable. When a CEO also serves as the chair of the board of directors, the variable is recorded as 1. Otherwise, it is recorded as 0.

Outside Director Appointments after the CEO. Researchers who emphasize agency theory have argued that the more outside directors appointed to the board by a CEO, the greater the power and influence enjoyed by the CEO (Sundaramurthy, 1996; Wade et al., 1990; Westphal & Zajac, 1994). As Westphal and Zajac (1995) observed that influential CEOs are able to nominate and appoint outside directors who are likely to

be sympathetic to their preferences and concerns. Further, these outside directors are likely to feel obliged to the CEO for their appointment and are likely to show loyalty or deference to him/her (Sundaramurthy, 1996; Wade et al., 1990). *Outside director appointments after the CEO* is measured as the number of outside directors appointed after the CEO at the beginning of each year.

Proportion of Inside Directors. Agency theorists argue that outside directors are more likely to undertake independent and effective monitoring and control of top management (Beatty & Zajac, 1994; Jensen & Meckling, 1976) while inside directors, as top executives, are likely to be concerned with their own managerial self-interest. It is therefore argued that the higher the proportion of inside directors on the board, the more powerful top management will be vis-à-vis outside directors, and the less independent and effective the board will be (Sundaramurthy, 1996; Wade et al., 1990). *Proportion of inside directors* is measured as the number of inside directors divided by the total number of directors on the board at the beginning of each year. The above measures are collected from companies' proxy statements.

Managerial Incentives – Managerial Stock Ownership

Agency theorists identify managerial ownership as an important incentive structure to manage agency problem (Jensen & Meckling, 1976). In my study, I examine the level of *CEO stock ownership* in the firm. This is measured as the proportion of outstanding voting shares owned by the CEO in the previous year. I did not include executive stock options in my measure of ownership. Researchers have observed that while stock options can serve as managerial incentives, their influence on managerial interests and actions may be different from those of actual stock ownership (Sanders, 2001). Data on managerial ownership is collected from companies' proxy statements.

Institutional Shareholders' Influence – Institutional Ownership

The influence of institutional shareholders' interests is proxied by the level of *institutional stock ownership*. Consistent with prior studies, institutional stock ownership is measured by the proportion of outstanding voting shares owned by institutional shareholders (Davis, 1991; Kosnik, 1987; Sundaramurthy, 1996). Institutional shareholders will include investment companies, pension funds, banks, and insurance companies (Davis, 1991; Parrino, Sias, & Starks, 2003). Data on institutional stock ownership are collected from the *Thomson Financial* database.

Social Ties – Number of Prior Adoption by Interlocked Firms

Consistent with prior research (e.g., Davis, 1991; Davis & Greve, 1997; Haunschild & Beckman, 1998), *social ties* are measured by the number of prior adoptions by interlocked firms. To collect data on this measure, I first compile data on board interlocks of the F500 companies using the company's proxy statements. Given that prior research has observed that board interlocks tend to be highly stable (Mariolis & Jones, 1982) and following prior studies (Beckman & Haunschild, 2002; Haunschild, 1993), I collect board interlocks data in intervals of five years starting from 1980 to 2000 (i.e., 1980, 1985, 1990, 1995, and 2000).

Both inside and outside directors are included when constructing a firm's board interlocks. Inside directors are executives of a firm who also serve on the board of directors. When an inside director serves on the board of other companies, he or she forms sent ties to these interlocked firms. Outside directors are executives of another firm who serve on the board of the focal firm. These outside directors create received ties between the focal firm and their own firm as well as indirect ties to other firms on which they also serve as directors.

As Haunschild and Beckman (1998) explained, interlocking directorates of sent and received ties created by inside and outside directors are likely to be carriers of information and social influence. Inside directors who sit on the board of another firm (i.e., sent ties) may learn about a practice from that firm, and consequently, influence the adoption behavior in their own firm (Haunschild, 1993). Outside directors, through their received ties, may also influence the adoption behavior of a focal firm by bringing their prior knowledge, experience, and preference about a practice from their own firm into the focal firm (Davis, 1991). Further, outside directors may also learn vicariously from the experiences of other firms on which they also serve as directors, and thereby influence the focal firm's behavior through these ties (Palmer et al., 1995; Palmer et al., 1993). To allow for the possible influence of all social ties, I collect data on sent and received ties and analyze their effects collectively as well as separately. *Number of prior adoptions by interlocked firms* is measured as the number of adoptions by interlocked firms in the prior 3 years. For test of robustness, I also measured the number of adoptions by interlocked firms in the prior year.

This measure of social ties emphasizes the mimetic behaviors commonly examined in prior literature (Davis, 1991; Haunschild, 1993). However, in a recent study, Westphal and his colleagues argued and found support for second-order mimetic behavior, which they defined as the "imitation of the propensity for tied-to firms to imitate their competitors" (2001, p. 737). Their results further suggest that the first-order imitation (i.e., the simple imitation of specific actions of tied-to firms) commonly observed in earlier studies may actually mask second-order imitation effects. This study does not examine second-order imitation and I recognize the possibility that any effects of social ties observed in this study may include second-order imitation effects.

Prestigious Endorsement

Prior adoptions by prestigious firms may influence other firms to adopt the same practice for themselves. Prestigious endorsement is measured as the number of prior adoptions by prestigious F500 firms. I used two indicators of prestige that have been widely used in prior studies: (1) firm size, and (2) firm performance (Haunschild & Miner, 1997; Haveman, 1993a; Kraatz & Zajac, 1996). Prior studies have shown that the actions of large firms tend to attract attention and be imitated by other firms (Haunschild & Miner, 1997; Haveman, 1993a). I therefore record the number of prior adoptions by the largest F500 companies (i.e., top quartile of sales revenue) in the prior 3 years. Second, Fombrun and Shanley (1990) observed that successful, high performing firms are frequently the most admired firms. These high performing firms enjoy high levels of prestige and their actions are frequently imitated by other firms (Haunschild & Miner, 1997; Haveman, 1993a). Hence, I record the number of prior adoptions by the most profitable F500 companies (i.e., top quartile of return on assets) in the prior three years. For test of robustness, I also measure the number of adoptions in the prior one year by the largest as well as most profitable F500 companies. Annual lists of the largest and the most profitable F500 companies are created from data obtained from COMPUSTAT.

Moderator Variable

Degree of Social Acceptance Over Time – Time Clock

To examine the moderating effects of the degree of social acceptance over time, I create a continuous time clock for each practice. Historical accounts and evaluations of the practices by Hirsch (1986), Castellucci and Haunschild (2004), and careful examination of the practices in this study suggest that the time clock offers a reasonably good proxy for the changing degree of social acceptance over time for each practice. This

is because the degrees of social acceptance for each practice demonstrated consistent trends over time. As noted earlier, in the case of tender offer takeovers, the degree of social acceptance increased over time. With for poison pills, however, the degree of social acceptance remains relatively unchanged over time. In the case of executive stock option repricing, the degree of social acceptance actually decreased over time. Further, the time clock method is consistent with prior studies that examined the ideas of institutionalization (e.g., Westphal & Zajac, 1994). The time clock measure takes on a value of one (1) in the first year of observation and increments by one (1) for each subsequent year. Specifically, for tender offer takeovers, *time clock* ranges from 1, when adoption occurred in 1980, to 25, when adoption occurred in 2004. For poison pills, *time clock* will range from 1, when adoption occurred in 1984, to 21, when adoption occurred in 2004. Lastly, for executive stock option repricing, *time clock* will range from 1, when adoption occurred in 1992, to 9, when adoption occurred in 2000. By creating individual time clocks for each practice, I am able to model separately the different temporal trends of the degrees of social acceptance for each practice. In the case of tender offer takeovers, the incrementing time clock is used to model increasing degrees of social acceptance over time. As for executive stock option repricing, the incrementing time clock is reverse-coded and models decreasing degrees of social acceptance over time. This study expands on prior research by considering that the degrees of social acceptance for a practice does not inevitably increase over time but can also remain stable or even decrease over time.

Control Variables

Firm Size

Prior studies have recognized the important influence of firm size on the likelihood of adoption (e.g., Blau, 1970; Blau & Schoenherr, 1971; Child, 1973; Haveman, 1993b; Kalleberg & Van Buren, 1996; Rogers, 2003). Two competing propositions have been made. On the one hand, researchers, who associate large organizations with greater structural inertia, have proposed that firm size is negatively related to adoption (e.g., Delacroix & Swaminathan, 1991). On the other hand, researchers, who associate large organizations with greater slack resources and absorptive capacity (Cohen & Levinthal, 1990), have proposed that firm size is positively related to adoption (e.g., Bantel & Jackson, 1989; Mahler & Rogers, 1999). Integrating these propositions, Haveman (1993b) observed that firm size exhibited an inverted-U shape relationship with entry into new market segments. Given the significance of firm size on the adoption of various practices, I control for its effect in my study. I use alternate measures of firm size. First, firm size is recorded annually as the *gross sales revenue* in the previous year. Second, firm size is recorded annually as the *number of employees* in the previous year. As both measures are highly skewed, the log transformation of each measure is used in my analysis.

Firm Age

Population ecologists have emphasized the relationship between firm age and structural inertia (Hannan & Freeman, 1989). Prior research has shown that firm age reduces a firms' ability to learn, change its strategy and behaviors, and consequently, decreases its likelihood of survival (e.g., Amburgey, Kelly, & Barnett, 1993; Baum & Mezias, 1992; Delacroix & Swaminathan, 1991; Fligstein, 1985). Given that firm age is

likely to influence the adoption of organizations, I control for its effect in my study. *Firm age* is measured as the number of years since a company's original date of incorporation. Data on date of incorporation is obtained from *Mergent Online* and *Hoovers*.

Firm Performance

Adoptions are frequently seen as responses to a firm's prior performance. In particular, poor performance is argued to initiate change as top managers try to respond to the decline in performance by engaging in problemistic search (Cyert & March, 1963; March & Simon, 1958). Consistent with prior studies, I control for the effects of prior performance on adoption by using two alternate measures of firm performance (Davis, 1991; Westphal & Zajac, 1994). First, firm performance is recorded annually as the *return on assets (ROA)*. Return on assets measures the firm's operating performance for the year and is calculated as the net profit after tax, divided by the value of the firm's assets. Second, firm performance is recorded annually as the *total market return* in the previous year. Total market return measures the value accruing to shareholders during a year and is a market-based measure of firm performance. It is calculated as the capital gains in the share over a year (i.e., the change in share price) plus dividends paid during a year, divided by the value of the share at the beginning of the year (Davis, 1991). Both measures are industry-adjusted at the two-digit Standard Industry Classification (SIC) to account for industry-specific effects. Annual data on total market return and ROA is collected from the COMPUSTAT database.

Firm Interlock Centrality

Network theorists have emphasized the importance of network centrality on organizational actions (Mizruchi, 1996). In particular, researchers have examined the influence of degree centrality on adoption (Davis, 1991; Davis & Greve, 1997;

Haunschild & Beckman, 1998; Rao & Sivakumar, 1999). A firm with higher degree centrality has more board interlock ties with other firms. These central firms are able to enjoy great access to information flows within the network (Useem, 1984). Further, as Davis (1991, p. 592) explained, centrality also "indicates a firm's status and the degree to which it is integrated into the corporate elites" and consequently, its susceptibility to social influence. Hence, a firm's degree centrality is likely to influence adoption and is included as a control variable. Mariolis and Jones (1982) observed that the degree centrality of firms was not only highly stable over time but the most reliable measure of network centrality. Hence, following prior studies, I compute centrality as the sum of all nonduplicated ties that a focal firm's board has with all other firms (Davis, 1991; Haunschild, 1993; Rao & Sivakumar, 1999). As degree centrality is highly skewed, I use the log transformation of degree centrality in my analysis (Davis, 1991).

Firm Long-Term Debt Structure

Prior literature has related firm's long-term debt structure to the adoption of acquisition-related practices including tender offer takeovers and poison pills (Haunschild, 1993; Mallette & Fowler, 1992). According to the free cash flow theory (Jensen, 1987), firms with low debt and high cash flows are more likely to engage in mergers and acquisitions. Further, a firm's capital structure will also determine its attractiveness as a takeover target and consequently, influence its decision to adopt anti-takeover defenses. I measure long-term debt structure as the ration of long-term debt to common equity.

Stock Market Performance

Prior research has shown that the adoption of acquisition-related activities (Haunschild, 1993; Haunschild & Beckman, 1998) and executive stock option repricing

(Pollock et al., 2002) are likely to be affected by broad macroeconomic influences. To account for these effects on adoption, I control for stock market performance between 1980 and 2004. I use the mid-year Dow Jones Industrial Average (DJIA), one of the most established stock market indices, to measure stock market performance.

The key control variables described above are applied to all three practices. In addition to these, I include an additional control variable for tender offer takeovers. Following prior research on corporate acquisitions (Haunschild, 1993; Haunschild & Beckman, 1998), I control for the focal firm's acquisition experience in the prior three years. This is because firms with lots of experience in corporate mergers and acquisitions may also be more likely to engage in tender offer takeovers because they may have greater knowledge and ability to engage in these sorts of activities.

ESTIMATION METHOD

Event history analysis is used to test the hypotheses on adoption (Allison, 1984; Yamaguchi, 1991). Event history analysis is the appropriate estimation method when the data are longitudinal and the phenomenon of interest is a discrete event. In event history analysis, the dependent variable is an unobserved instantaneous rate of transition from one state to another. As Davis (1991) has observed, an important issue in event history analysis is the question of time dependence in transition rates. While parametric approaches to modeling time dependence are available (see Tuma & Hannan, 1984), their patterns of time dependence do not fit those of the three organizational practices in my study. This is because parametric models either assume that transition rates are changing monotonically (e.g., Gompertz or Makeham) or initially increase then decrease over time (e.g., log-normal or log-logistic). However, given that the patterns of time dependence for the three practices are more complex than those assumed in parametric models (i.e., they tend to increase then decrease, then increase and decrease again), non-parametric,

proportional hazards model provides a more suitable approach. In proportional hazards model, the transition rate is separated into two components; one that varies over time for every actor in the population, and the other that varies with the characteristics of the individual actors (Cox, 1972). The Cox proportional hazards model is given by the following equation:

$$h(t) = q(t)exp[bX(t)],$$

where $h(t)$ is the hazard rate of adoption at time t, $q(t)$ is the unspecified time dependence function, $X(t)$ is a vector of covariates, and b is the corresponding vector of coefficients. The log-linear model implies that a one-unit change in X leads to a change in the hazard rate by $exp(b)$.

As Westphal and Zajac (1994) have noted, two potential limitations of the Cox proportional hazard model exist. First, the Cox model only uses information about the relative order of event time and not the specific timing of events. This means that the parameters estimates are less efficient. However, the loss of efficiency is typically small for large samples. Given the size of my samples, the use of Cox proportional hazard model should not significantly affect my analysis. Second, the Cox model will lead to biases in parameter estimates when there are many left-censored observations—events that have occurred prior to the observation period. In my three research settings, left-censoring exists in the case of tender offer takeovers and executive stock option repricing. However, analysis of historical data suggests that the instances of left-censored observations are few in all the contexts and any biases in parameter estimates should be minimal.

Data are organized by firm-year and updated annually over the respective windows of observation, beginning when a firm first enters the sample and continuing until an adoption event has occurs or when the firm is right-censored (i.e., either because

they cease to exist or until the end of the observation window). All independent variables are either recorded at the beginning of each year or lagged. For lagged variables, different time lags of either one or three years are used in my analyses. Finally, given that specific dates for tender offer takeovers and poison pills adoptions are available, continuous proportional hazards model is used to test the hypotheses (Cox, 1972; Yamaguchi, 1991). In the case of executive stock option repricing, the specific dates of repricing are not available. Hence, discrete proportional hazards model is used to test the hypotheses on executive stock option repricing (Cox, 1972; Yamaguchi, 1991). All statistical analyses are implemented using the STATA statistical package.

RESULTS

Tables 4, 5, and 6 present the descriptive statistics and correlations of the variables for tender offer takeovers, poison pills, and executive stock option repricing respectively. Due to missing data, several firms were dropped from each sample. For tender offer takeovers, the final sample consists of 294 F500 firms, with 146 adopting firms and 148 non-adopting firms between 1980 and 2004. Four firms were dropped from the initial sample of adopting firms and two firms were dropped from the initial sample of non-adopting firms. As for poison pills, the final sample consists of 286 F500 firms, with 145 adopting firms and 141 non-adopting firms between 1984 and 2004. Here, five firms were dropped from the initial sample of adopting firms and nine firms were dropped from the initial sample of non-adopting firms. Lastly, for executive stock option repricing, the final sample consists of 114 F500 firms, with 48 adopting firms and 66 non-adopting firms between 1992 and 2000. Two firms were dropped from the initial sample of adopting and four firms were dropped from the initial sample of non-adopting firms.

The three practices generally have high correlations among the same set of variables. In particular, high positive correlations exist between firm size and centrality, as well as among time clock, stock market performance, prior adoptions by large firms, and prior adoptions by profitable firms. Further, high correlations also exist between the main effects and their respective interactions. Following prior research (e.g., Haunschild & Miner, 1997), I centered the main effects before computing the interaction terms. Further, to understand if multicollinearity is likely to present problems in my analysis, I conducted multicollinearity diagnosis using the variance inflation factor (VIF) for each of the practices. In the case of tender offer takeover, VIFs among the independent variables were well below the minimum value of 10 and no further actions were taken. However, in the case of both poison pills and executive stock option repricing, the VIFs for time clock, stock market performance, prior adoptions by large firms, and prior adoptions by profitable firms were reasonably high (although still below the minimum value of 10). To address this multicollinearity, I follow prior research (Rhee & Haunschild, 2006; Sine, Haveman, & Tolbert, 2005; Sine, Shane, & Di Gregrorio, 2003) and orthogonalized these high correlated variables using a modified Gram-Schmidt procedure implement in STATA through the orthog command. This procedure partials out the common variance among the variables and constructs orthonormal variables. Further, in the case of executive stock option repricing, because high correlations persist among prior adoptions by large firms, prior adoptions by profitable firms, and their interactions, I do not include these two measures of prestigious endorsement into the same model but instead include the separate measures of prestigious endorsement in different models.

Tables 7, 8, and 9 present the results of the event history analysis for the rate of adoption of tender offer takeovers, poison pills, and executive stock option repricing respectively. In each separate analysis, Model 1 presents the base model that includes the

control variables. Model 2 examines the hypothesized effects for the main independent variables and Model 3 presents the full model that adds the hypothesized interaction effects. For tender offer takeovers, the results in Model 1, Table 7 show that large firms are more likely to engage in tender offer takeovers, while profitable firms are only marginally more likely to do so. Further, strong stock market performance encourages firms to engage in tender offer takeovers. However, over time, firms are marginally less likely to engage in tender offer takeovers. As for poison pills, strong stock market performance encourages firms to poison pills as a takeover defense. However, firms are less likely to adopt the practice over time as the significant time clock indicates. In the case of executive stock option repricing (see Model 1 in Table 9), younger and highly leveraged firms are more likely to reprice their executive's stock options. The results remain relatively unchanged when alternate measures of firm size and performance are used. Results for the hypothesized main and interaction effects for the key independent variables are presented in the following sections.

Managerial Power

Political and agency theorists have argued for a positive relationship between managerial power and the adoption of practices that are likely to further managerial self-interests. Using the composite measure of CEO power (i.e., the sum of z-scores of the four individual measures), the results from the separate analyses of the three practices provide no support for this relationship (see Model 2 in Tables 7, 8, and 9). As the non-significant results in Model 2 of Tables 8 and 9 show, even for practices that are clearly in the self-interest of managers (i.e., poison pills and executive stock option repricing) there is no evidence that powerful CEOs are more likely to engage in these practices. The results remained largely unchanged when individual indicators of CEO power are used instead of the composite measure. These non-significant results are consistent with

some prior studies on poison pills (Mallette & Fowler, 1992; Sundaramurthy, 1996) and executive stock option repricing (Brenner et al., 2000; Pollock et al., 2002). Hence, Hypothesis 1a, 1b, and 1c, which argued that the greater the level of managerial power, the higher the likelihood firms will engage in tender offer takeovers, adopt poison pills, and reprice executive stock options respectively, are not supported in this analysis.

Hypothesis 2a/b/c predict that the effects of managerial power on the rate of adoption will (a) decrease for tender offer takeovers, (b) remain stable for poison pills, and (c) increase for executive stock option repricing over time. The results for each practice are presented in Model 3 in Tables 7, 8, and 9. As can be seen in Model 3, Table 7, there is no support that the effect of managerial power on adoption decrease over time as tender offer takeovers became more socially accepted. Figure 5a plots the interaction of managerial power with the degrees of social acceptance over time for tender offer takeovers. The graph shows that the effect of managerial power on adoption between low social acceptance periods and high acceptance periods remains essentially unchanged (i.e., the slopes are relatively parallel). Hypothesis 2a is therefore not supported. In the case of poison pills, however, the results support the prediction that the effect of managerial power on adoption remains stable over time as the practice's social acceptance remains relatively unchanged. As Model 3 in Table 8 shows, the interaction term of managerial power and the time clock is not significant. The parallel slopes in Figure 5b show that the effect of managerial power on adoption is essentially unchanged over time. In support of Hypothesis 2c, Model 3 in Table 9 shows that the effect of managerial power on adoption significantly increased over time as the practice becomes less socially accepted. As seen in Figure 5c, when executive stock option repricing was accepted (or at least tolerated) as an incentive strategy early in the diffusion cycle, the level of managerial power did not affect the likelihood of adoption. However, over time,

as the practice becomes more socially unacceptable, the effect of managerial power on adoption increased such that more powerful CEOs were more likely to reprice executive stock options than less powerful CEOs. In sum, Hypothesis 2a is not supported, but Hypothesis 2b and 2c are supported. In the case of poison pills and executive stock option repricing (but not tender offer takeovers), the effect of managerial power on adoption changed (or remained stable) over time depending on how the degree of social acceptance for each practice evolves.

Managerial Incentives – Managerial Stock Ownership

There is no support for agency theory's assertion of a negative relationship between managerial incentives, through CEO stock ownership, and the adoption of practices consistent with managerial self-interest. As shown in Model 2 in Tables 7, 8, and 9 the effects of CEO stock ownership on the likelihood of adoption the three practices are not significant, even though the effects for poison pills and executive stock option repricing are in the direction predicted. The non-significant result for executive stock option repricing is consistent with prior research (Brenner et al., 2000). However, the null result for poison pills is inconsistent with prior studies which tend to find a negative relationship between managerial ownership and adoption (Davis, 1991; Davis & Greve, 1997; Malatesta & Walkling, 1988; Mallette & Fowler, 1992; Sundaramurthy, 1996). A possible explanation for this difference is that most prior studies examined the adoption of poison pills between 1984 and 1989. By extending the time period to 2004, this study captures possible differences in the effects over time and this may account for the null result (the interaction graph in Figure 6b offers some support for this). Hence, Hypothesis 3a, 3b, and 3c, which argued that the greater the level of managerial stock ownership, the lower the likelihood firms will engage in tender offer takeovers, adopt poison pills, and reprice executive stock options, are not supported in this analysis.

Providing managerial incentives, through higher stock ownership, do not appear to realign managerial interest with those of shareholders and has little effect on the adoption of practices that may be detrimental to shareholders' interests.

Hypothesis 4a/b/c predict that the effects of managerial incentives, through CEO stock ownership, on the rate of adoption will (a) decrease for tender offer takeovers, (b) remain stable for poison pills, and (c) increase for executive stock option repricing over time. As Model 3 in Table 7 shows, there is no support that the effect of managerial incentives on adoption decrease over time as tender offer takeovers became more socially accepted. Figure 6a shows that while there is a slight weakening of the effects over time as predicted, the effect of managerial incentives on adoption between low social acceptance periods and high acceptance periods remains essentially unchanged (i.e., the slopes are relatively parallel). Hence, Hypothesis 4a is not supported. However, in the case of poison pills, the results do support the hypothesis that the effect of managerial incentive on adoption remains stable over time when its social acceptance remains relatively unchanged. As shown in Model 3, Table 8, the interaction term of managerial incentives and the time clock is not significant. The parallel slopes in Figure 6b illustrate that the effect of managerial incentives on adoption was essentially unchanged over time. As for executive stock option repricing, the results in Model 3, Table 9, support the prediction that the effect of managerial incentives on adoption increased over time as the practice became less socially accepted. Early in the diffusion cycle, CEO stock ownership has little effect on the adoption of repricing. However, as the practice becomes less socially accepted over time, managerial incentives become more important and CEOs with proper incentives (i.e., higher levels of stock ownership) are less likely to adopt executive stock option repricing, a practice frowned upon by shareholders. This effect can be seen in Figure 6c where the slope is relatively flat for periods when social

acceptance is higher (i.e., early time periods) and much steeper for periods when social acceptance is lower (i.e., late time periods). In sum, Hypothesis 4a is not supported, but Hypothesis 4b and 4c are supported. In the case of poison pills and executive stock option repricing (but not tender offer takeovers), the effect of managerial incentives on adoption changed (or remained stable) over time depending on how the degree of social acceptance for each practice evolves.

Institutional Shareholders' Influence – Institutional Ownership

While the role of institutional shareholders have garnered much attention in recent studies (Davis & Thompson, 1994; Sundaramurthy, 1996), this study finds no support for the idea that greater levels of institutional ownership, and consequently, greater institutional shareholders' influence, will decrease the adoption of practices that may be detrimental to the interests of shareholders (as noted earlier, the three practices are likely to be detrimental to institutional shareholders' interests). As shown in Model 2 in Tables 7 and 9, while the direction of the effect of institutional shareholdings on the adoption for tender offer takeovers and executive stock option repricing are negative as predicted, their effects are not significant. In the case of poison pills, consistent with prior studies (Davis, 1991; Davis & Greve, 1997; Mallette & Fowler, 1992) and contrary to Hypothesis 5b, higher levels of institutional ownership did not discourage adoption but in fact, significantly increase the likelihood of adopting poison pills. As researchers have commented, this result suggests that institutional ownership may also be an indicator of the degree of agency present in the firms and top managers in these firms may be more likely to adopt poison pills to strengthen their own position vis-à-vis those of shareholders. Hence, Hypothesis 5a, 5b, and 5c, which argued that the greater the level of institutional shareholder influence, the lower the likelihood firms will engage in tender

offer takeovers, adopt poison pills, and reprice executive stock options respectively, are not supported in this analysis.

Hypothesis 6a/b/c predict that the effects of institutional shareholders influence, through institutional ownership, on the rate of adoption will (a) decrease for tender offer takeovers, (b) remain stable for poison pills, and (c) increase for executive stock option repricing over time. Separate analyses of the three practices support these predictions (See Model 3 in Tables 7, 8, and 9). As Model 3 in Table 7 shows, the effect of institutional ownership on adoption decreases over time as tender offer takeovers become more socially accepted. From Figure 7a, we see that when tender offer takeovers were less socially accepted early in the diffusion cycle, high levels of institutional ownership have a relatively strong negative effect on the likelihood adoption (i.e., the slope is relatively steep). However, as the practice becomes more socially accepted as an appropriate strategy to corporate acquisition over time, the effect of institutional ownership on adoption weakens significantly (i.e., the slope is relatively flat). Hence, Hypothesis 6a is supported. As for poison pills, the non-significant result is as predicted but it does not support the prediction that the effect of institutional ownership on adoption remains stable over time as the practice's social acceptance remains relatively unchanged. As shown in Model 3, Table 8, the interaction term of institutional ownership and the time clock is not significant. However, Figure 7b shows that the effect of institutional ownership on adoption does not remain unchanged over time but instead differs between early and late time periods. Hypothesis 6b is therefore not supported. In support of Hypothesis 6c, the results in Model 3, Table 9, support the prediction that the effect of institutional ownership on adoption increased over time as executive stock option repricing becomes less socially accepted. As we can see in Figure 7c, early in the diffusion cycle, when the practice was more socially accepted, the levels of institutional

ownership have little effect on repricing (i.e., the slope is relatively flat). However, as the practice becomes less socially accepted over time, firms with higher levels of institutional ownership are less likely to adopt executive stock option repricing, indicating greater concerns with and influence by institutional shareholders over such socially unacceptable practices. In sum, Hypothesis 6a and 6c are supported and 6b is not supported. For tender offer takeovers and executive stock option repricing, the effect of institutional shareholders influence, through institutional ownership[3], on adoption changed over time depending on how the degree of social acceptance for each practice evolves.

Social Ties – Prior Adoptions by Interlock Firms

Analyses for the effect of social ties on adoption are conducted for tender offer takeovers and poison pills only. This is because for executive stock option repricing, data limitation prevented the implementation of event history analysis (i.e., there was no variance in the variable for all adopters in the sample). The results for the remaining two practices support the arguments that social influence carried though social ties is likely to affect adoption (see Model 2 in Tables 7 and 8). Analyses are conducted using data that included all interlocks ties (i.e., sent and received ties). As shown in Model 2, Table 7, prior tender offer takeovers by interlocked firms are positively and significantly related to current tender offer takeovers by sampled firms. As for poison pills, Model 2 in Table 8 shows that prior adoptions by interlocked firms are positively and marginally related to current adoptions by sampled firms. This is consistent with results in prior studies (Castellucci & Haunschild, 2004; Davis, 1991; Davis & Greve, 1997). Hence,

[3] Some researchers (Parrino, Sias, & Starks, 2003; David et al., 1998) have suggested that certain types of institutional shareholders (i.e., those with only an investment, and not a business relationship with their portfolio companies, such as mutual funds, public pension funds, foundations, endowments, and trusts) are more likely to resist managerial pressure, exercise their influence, and engage in active governance whenever their interests are at stake. To examine this, I ran supplementary analyses using ownership data for these "pressure-resistant" institutional shareholders, and the results were unchanged.

Hypothesis 7a and 7b, which argued that the greater the number of social ties to prior adopters, the higher the likelihood firms will engage in tender offer takeovers and adopt poison pills respectively, are supported in this analysis, while Hypothesis 7c is not tested because of data limitations indicated above.

Hypothesis 8a/b/c predict that the effects of social ties, through prior adoptions by interlocked firms, on the rate of adoption will (a) increase for tender offer takeovers, (b) remain stable for poison pills, and (c) decrease for executive stock option repricing over time. As explained above, the interaction effect for executive stock option repricing over time is not analyzed because of data limitations. In the remaining analyses for tender offer takeovers and poison pills (See Model 3 in Table 7 and 8), the results support the hypotheses. As Model 3 in Table 7 shows, the effect of prior tender offer takeovers by interlocked firms on current tender offer takeovers by sampled firms increased over time as the practice becomes more socially accepted. In Figure 8a, we see that when the practice was less socially accepted earlier on, prior adoptions by interlocked firms have little effect on adoption (i.e., the slope is relatively flat). However, as the practice becomes more socially accepted, prior adoptions by interlocked firms became more influential and significantly increase the likelihood that sampled firms will also engage in tender offer takeovers. Hence, Hypothesis 8a is supported. As for poison pills, the results in Model 3, Table 8 show that the effect of prior adoptions by interlocked firms on current adoption by sampled firms remains stable over time as its social acceptance remains relatively unchanged. As Figure 8b shows, the parallel slopes illustrate that the effect of prior adoptions by interlocked firms on adoption remains essentially unchanged. In sum, Hypothesis 8a and 8b are supported. In the case of tender offer takeovers and poison pills (but not executive stock option repricing), the effect of social ties on adoption changed (or remained stable) over time depending on how the degree of social

acceptance for each practice evolves. Further analyses were also conducted using distinct categories of interlock ties (i.e., sent and received ties). The result for sent ties is not significant, while the result for received ties is significant and similar to the results reported above.

Prestigious Endorsement

To evaluate the effects of prior adoptions by prestigious firms, two common indicators of prestige were used: (1) prior adoptions by large firms, and (2) prior adoptions by profitable firms. In the case tender offer takeovers and poison pills, both variables are included in the same model in their respective analyses. In the case of executive stock option repricing, because the two variables are highly correlated, they are not included in the same model but are analyzed in separate models[4]. While prior studies have argued that prior adoptions by prestigious firms will provide an endorsement effect for a practice and encourage other firms to subsequently adopt the same practice, results from the separate analyses for the three practices offer no support for this idea. As Model 2 in Tables 7, 8, and 9 show, prior adoptions by large firms for each of the practice did not significantly influence current adoption by sampled firms, even though the direction of the effect is positive as predicted. Further, in the case of prior adoptions by profitable firms, the effects are again not significant in any of the three practices. In the case of poison pills and executive stock option repricing, the effect of prior adoptions by profitable firms on adoption is in the opposite direction. Hence, Hypothesis 9a, 9b, and 9c, which argued that the greater the level of prestigious endorsement, the higher the likelihood firms will engage in tender offer takeovers, adopt poison pills, and reprice executive stock options respectively, are not supported in this analysis. The results in this

[4] Results of the analysis for prior adoptions by profitable firms are not presented in Table 9 but are available from the author.

study show that prior adoptions of large firms or profitable firms do not appear to endorse a practice and carried little or no social influence on the subsequent adoption decisions of other firms.

Hypothesis 10a/b/c predict that the effects of prestigious endorsement, indicated by the prior adoptions of large firms or profitable firms, on the rate of adoption will (a) increase for tender offer takeovers, (b) remain stable for poison pills, and (c) decrease for executive stock option repricing over time. The results for each practice are presented in Model 3 in Tables 7, 8, and 9. In the case of tender offer takeovers, Model 3 in Table 7 shows that there is no support that the effect of prior tender offer takeovers by prestigious firms on current tender offer takeovers by sampled firms increases over time as the practice becomes more socially accepted. In fact, the temporal relationships between prior adoptions by large firms or profitable firms are somewhat complex. As shown in the interaction graphs for tender offer takeovers in Figure 9a and 11a, the two indicators of prestigious endorsement have opposite effects on adoption over time. Prior adoptions by large firms have a positive effect on current adoption early on when the practice is less socially accepted. In contrast, prior adoptions by profitable firms have a negative effect on current adoption early on. Hence, Hypothesis 10a is not supported. As for poison pills, the analysis produced mixed results (see Model 3 in Table 8). For prior adoptions by large firms, while the interaction effect is not significant as predicted, the effect of prestigious endorsement on adoption does not appear to remain stable over time when the practice's social acceptance remains relatively unchanged (as the diverging slopes in Figure 9b show). However, in the case of prior adoptions by profitable firms, the interaction effect is not significant as predicted. As shown in Figure 10b, the effect of prestigious endorsement on adoption remains relatively stable between the early and late time periods. Hypothesis 10b is only partially supported. As for executive stock option

repricing, the results again reflect the complex temporal relationships between prestigious endorsement by large firms or profitable firms on adoption. Model 3 in Table 9 presents the results for prestigious endorsement by large firms and, contrary to prediction, the effect of prior adoptions by large firms on current adoptions by sampled firms did not decrease over time as the practice becomes less socially accepted. In sum, Hypothesis 10a and 10c are not supported, while Hypothesis 10b is only partially supported. The results, however, do suggest complex temporal relationships between prestigious endorsement by large firms or profitable firms on subsequent adoption that is contingent on how the respective degrees of social acceptance for each practice evolves and further investigation will be needed.

CHAPTER FIVE: DISCUSSION AND CONCLUSIONS

The central proposition of this study argues that the effects of different actors' interests and different carriers of institutional influences on adoption will change over time depending on changes in the degree of social acceptance for a practice. Taken together, the results from the separate analyses of the three practices provide some support for this proposition. This study provides some evidence that the effects of top managers' and institutional shareholders' interests as well as social influences carried by the prior actions of social ties and prestigious firms on adoption decreased, remained stable, or increased over time depending on how the degrees of social acceptance for each practice evolved. The overall pattern of results offers interesting implications to our current understanding of the role of actors' interests and carriers of institutional influences in organizational adoption.

EFFECTS OF INTERESTS

Theories on agency and power and politics have presented strong arguments for why managerial power, managerial incentives, and institutional shareholders' influence will affect adoption of practices that will further managerial self-interests. The results in this study offer no support for these predictions even for practices that present clear agency problems, such as poison pills and executive stock option repricing. There are several explanations for these null results. The non-significant results for most of the main effects may suggest that arguments for agency and power on adoption may be somewhat overgeneralized when the role of institutional influences are ignored in prior studies. As Granovetter (1985; 1992) explained, organizational actors are embedded in structures of social relationships and it is unrealistic to assume that social actors, in particular, top managers can pursue their self-interests relatively unencumbered by social commitments

and obligations. Another reason is that as researchers have observed (Pfeffer & Salancik, 1978; Rogers, 2003; Strang & Soule, 1998; Tolbert & Zucker, 1983, 1996) and I have argued throughout this study, the effects of interests on adoption are not likely to be stable over time. Consequently, it is difficult to find significant results for the main effects of interests on adoption over an extended time period when their effects are likely to changes.

However, by examining the effects of interests on adoption over time, this study offers greater insights about the effects of managerial power, managerial incentives, and institutional shareholders on adoption. The results suggest that as a practice becomes more socially unacceptable and the agency problem becomes more clearly defined (i.e., when top managers' interest is clearly different from shareholders' interest with regards to a practice), the effects of managerial power, managerial incentives, and institutional shareholders on adoption becomes more significant and more consistent with the predictions of theories of agency and power. This is most evident in the case of executive stock option repricing. When the practice is initially accepted (or at least tolerated) as an incentive strategy to retain talented top managers early on, the interests of top managers and institutional shareholders have little effects on its adoption. However, as executive stock option repricing becomes socially unacceptable over time, the role of interests on adoption becomes more significant, such that firms with powerful top managers, poor managerial incentive structures, and weak institutional shareholders are more likely to adopt executive stock option repricing. In contrast, for tender offer takeovers, when top managers' and institutional shareholders' interests are less divergent, we find less evidence of agency at play, as evident by the non-significant results for managerial power and incentives. Hence, the important question in adoption is not whether agency and power matters but rather ***when*** they are likely to matter most. This

study reveals that the effects of managerial power, managerial incentives, and institutional shareholders influence on adoption are most significant in situations when managerial self-interests clearly diverge from those of shareholders and when agency problems are most evident as decreasing social acceptance of executive stock option repricing over time illustrates. This conclusion is also supported by the results in Pollock et al. (2002). While they found no significant results for the main effects of organizational power and politics on repricing, like this study, they did find that when the negative spread of options increased and top managers will not benefit from their options, power and politics become more significant predictors of repricing. Specifically, powerful CEOs are more likely to reprice, while CEOs with proper incentives and firms with stronger institutional shareholders' influence are less likely to reprice when the negative spread increased.

Another interesting conclusion suggested by the pattern of results is that institutional shareholders interests and their influence on adoption are likely to be affected by prevailing social attitude towards a practice. In the case of tender offer takeovers, while institutional shareholders of acquiring firms tend to frown upon and actively resist tender offer takeovers early in the diffusion cycle when social acceptance is low, they become less resistant to the practice when it becomes more socially accepted over time. Further, when executive stock option repricing is accepted (or at least tolerated) as an incentive strategy early on, institutional shareholders did not actively object to or resist the practice. However, as the practice becomes socially unacceptable over time, institutional shareholders began to actively resist the practice. These results illustrate how institutional shareholders' interests and influence tend to map onto prevailing social attitudes about the social acceptance of a practice. Hence, institutional shareholders can be seen to influence, as well as be influenced by, the social attitude

regarding different practices. In contrast, the results suggest that top managers' interests and influence tend to map less well onto prevailing social attitudes and top managers will adopt practices to further their own self-interest whenever their self-interests are clearly defined and when they are able to do so. What this study illustrates is that *when* this will occur depends on the prevailing social attitudes about a practice as it will affect the actor's interests and their ability to further them.

EFFECTS OF CARRIERS OF INSTITUTIONAL INFLUENCE

Institutional theory argues that social information and influences, transmitted through different institutional carriers, will affect adoption. The results in this study offer some support for this prediction. In particular, relational carriers of social influences, represented by social ties to prior adopters, are found to be an effective conduit of social information and influence. On the other hand, symbolic carriers, represented by the prior adoptions of prestigious firms, are less effective conduits and carry little social influence on others. There are several plausible reasons for the non-significant results of symbolic carriers. First, the effectiveness of symbolic carriers of social influences may be greater in contexts where a practice is fully institutionalized (i.e., taken-for-granted as appropriate and necessary). In contexts where social values and norms are less well-established (as are the practices in this study), then more direct and intimate modes of communication may be necessary to convey social information and influence and consequently, affect adoption (Davis, 1991; Haunschild & Beckman, 1998). Second, the effectiveness of symbolic carriers may be greater in social setting where reference groups are much more narrowly defined and social actors are more similar in nature. Prior studies, situated within specific industries, have found evidence of prestigious endorsement (Burns & Wholey, 1993; Haveman, 1993a; Loh & Venkatraman, 1992). However, by focusing on the population of the largest U.S. companies (i.e., F500

companies), this study examines the social influences that may prevail within a fairly broad social category. In this broad social setting, the effectiveness of symbolic carriers may consequently be relatively low. As such, this study represents a more conservative test of the effect of symbolic carriers of institutional influences on adoption and may account for the non-significant results observed.

Further, by examining the effects of different carriers of institutional influences on adoption over time, the results offer some interesting and surprising observations for the role of social ties and prestigious endorsement in adoption. The significant interaction effects for tender offer takeovers and poison pills illustrate how the effect of social ties on adoption changed (or remained stable) over time depending on how the degree of social acceptance for each practice evolves. As social acceptance for tender offer takeovers increased over time, the effect social ties on adoption strengthened. However, when the degree of social acceptance for poison pills remained relatively unchanged over time, then the effect of social ties on adoption remained stable. The effectiveness of social ties as a carrier of institutional influences strengthened as a positive social consensus for the practice emerged. The interaction effects of prestigious endorsement carried by the actions of large or profitable firms also revealed some surprising results even though they are not significant. First, while prior studies have general considered firm size and profitability as indicators of prestige and predicted similar responses to and outcomes for them, this study shows that firms may regard and respond to the prior actions of large firms and profitable firms differently. Second, the temporal effects of prestigious endorsement across the three practices appear more complex than predicted in this study. The interactions graphs show that the effects of prior adoptions by large or profitable firms often flip over time instead of the simple increasing, decreasing, or stable trend predicted in this study. This suggests that social

actors may receive and respond to the social information communicated through the symbolic actions of others in a different manner depending on the prevailing social attitude regarding a particular practice. Organizational theory will definitely profit from future research on these unexpected findings.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The design of my study presents several limitations as well as directions for future research. First, I am not able to directly measure the degrees of social acceptance over time in this study. Instead, I use time clocks to proxy the trends in changes in social acceptance over time. This method is consistent with prior studies that examined the idea of institutionalization (e.g., Westphal & Zajac, 1994). While historical accounts, evaluations of the practices in prior studies (Castellucci & Haunschild, 2004; Davis, 1991; Hirsch, 1986), and a careful assessment of the diffusion of each practice in this study suggest that a time clock is a reasonably good proxy, it will be useful in future studies to develop a more direct measure of degrees of social acceptance. The framework presented by Castellucci and Haunschild (2004) offers a good basis to develop such a measure.

However, a fundamental question with the concept of social acceptance still exists—socially accepted by whom? While this study strives to observe a general social consensus among key stakeholders, it may be difficult to obtain a general measure of social acceptance. Instead, a practice may become more or less socially accepted by different stakeholder groups. This issue is both a limitation of this study as well as the broad literature on institutional theory where a general institutional logic is always presumed to exist (even though it frequently reflects only the logic of the financial community). In the attempt to develop a more precise measure of social acceptance in

the future it may be useful to identify key social constituents and develop different measures of social acceptance for each.

Second, in the case of poison pills, I predicted null effects for the interactions of the respective predictor variables and the degrees of social acceptance over time and offered the argument that unchanging degrees of social acceptance is the explanation for these non-results. While the explanation is plausible, non-results are not the best evidence to support my predictions. Other alternative explanations, not examined herein, may be responsible for these non-results. However, while non-results may be ambiguous within the individual context of poison pills, when taken together with the results for the other two practices, the different pattern of results across the three practices offer greater confidence in the arguments set forth for the predicted null effects for poison pills.

Third, it is important to recognize that the practices examined in this study include those that can be adopted repeatedly (e.g. tender offer takeovers and executive stock option repricing) as well as those that can be adopted only once (e.g. poison pills). In this study, I examined adoption of the three practices as a discrete transition in states between that of a non-adopter and an adopter. This method may overlook conceptual differences between the two types of practices. To address this limitation, I have collected initial data on subsequent, repeated adoptions and will analyze this in the future.

Fourth, it is also important to acknowledge the issues surrounding the small number of executive stock option repricing events among the population of the largest U.S. companies. Given the small sample size, models used in the analyses are necessarily simplified. Also, limited variance in the data resulting from the small sample prevented the analysis of the effects of social ties to prior adopters. As such, the results relating to executive stock option repricing should be regarded as exploratory. Future research should strive to replicate the results by expanding the sample and including

more repricing events, or studying a practice that has similarly become less socially accepted over time but with greater number of events within a population.

Fifth, this study focused exclusively on the adoption behaviors of the largest U.S. companies. Because of differences in important characteristics between large and small companies, the results in this study may not generalize to small and medium-sized companies. It will be useful in future studies to investigate if the effects of actors' interests and carriers of institutional influences on adoption observed in this study will generalize to the population of small and medium-sized companies. Further, because large firms tend to adopt practices at later stages of a diffusion cycle (DiMaggio & Powell, 1983; Leblebici et al., 1991), I do not investigate adoptions from the very onset of an innovation. By studying smaller companies, future studies can also investigate if the results in this study will generalize to adoptions that occur very early in the diffusion cycle when an innovation is first introduced

Lastly, while I try to include the interests of different actors' as well as the social influences carried by different institutional carriers, I have excluded others because they are not relevant to the practices in this study or because of data limitation. Given that different actors and different carriers of social influence are likely to be affected in different ways by the evolving social attitude of a practice as this study has illustrated, it will be useful in future studies to identify and examine the impact of other stakeholders (e.g., employees and other interest groups) as well as other carriers of social influence (e.g., prior actions of similar or structurally equivalent others) on adoption.

CONTRIBUTIONS OF THE RESEARCH

This study makes several important theoretical and empirical contributions. By examining how the effects of interests and carriers of institutional influences on adoption change over time, depending on the degree to which a practice becomes socially

accepted, this study offers a more nuanced and dynamic model of organizational adoption than previous studies. While Tolbert and Zucker's (1983; 1996) ideas on the process of institutionalization offer a nice and simple model of the effects of interests and carriers of institutional influences on adoption over time, the findings in this study, together with the mixed results in prior studies, demonstrate that the effects of interests and carriers of institutional influences on adoption over time is more complex than previously theorized. This study offers a more comprehensive understanding of how actors' interests and carriers of institutional influences will affect adoption over time as social attitudes towards a practice changes.

Further, by developing and empirically testing the temporal effects of interests and carriers of institutional influences on adoption, this study offers important insights to our current understanding of agency, power, and social networks. Prior studies defined within these perspectives have been relatively static, even though the effects of actors' interests (Pfeffer & Salancik, 1978) and institutional carriers of social influences on adoption (Tolbert, 1985; Tolbert & Zucker, 1996) are often recognized to change over time. By examining how actors' interests and their ability to enact those interests are affected by evolving social attitude towards a practice over time, this study illustrates when and under what conditions the interests of different actors will prevail. This study shows that the interests of organizational actors and their ability to enact them are likely to be influenced by evolving social attitude. Similarly, by examining how different carriers of institutional influences will affect the adoption of practices that become varyingly diffused and socially accepted, this study demonstrates how the effectiveness of different carriers of social influences changes as prevailing social attitude towards a practice changes. This study shows that relational carriers may be more effective conduits of social influence than symbolic carriers when social norms and values are not

fully well-established (i.e., fully institutionalized). Further, their effectiveness tends to depend on the prevailing degrees of social acceptance of a practice. The results in this study therefore offer a dynamic perspective to our current understanding of agency, power, and social networks.

Lastly, the comparative research design in this study allows us to not only test the generalizability of key theoretical assertions but also provide more precise specifications about the determinants of adoption across different practices. This is particularly important for the literature on adoption and diffusion (Strang & Soule, 1998). Prior studies that have examined central concepts of adoption and diffusion in different research settings have frequently produced mixed results. This has made the accumulation of knowledge about adoption difficult. By studying the adoption of different practices by the population of the largest U.S. companies, this study allows us to make stronger conclusions about the different determinants of adoption and gain deeper understanding of how the interests of different organizational actors will interplay with the social influences carried by different institutional carriers to determine adoption over time.

Table 1: Table of Hypotheses.

TOT – Tender Offer Takeover
PP – Poison Pills
ESOR – Executive Stock Option Repricing

Constructs	**Hypotheses**	**Organizational Practice**	**Effect**	**Temporal Trend (Interaction)**
Interests				
Managerial Power	H1a/b/c	TOT / PP / ESOR	+	
	H2a	TOT	-	Decreasing
	H2b	PP	null	Stable
	H2c	ESOR	+	Increasing
Managerial Incentive – Managerial Stock Ownership	H3a/b/c	TOT / PP / ESOR	-	
	H4a	TOT	+	Decreasing
	H4b	PP	null	Stable
	H4c	ESOR	-	Increasing
Institutional Shareholders Influence – Institutional Ownership	H5a/b/c	TOT / PP / ESOR	-	
	H6a	TOT	+	Decreasing
	H6b	PP	null	Stable
	H6c	ESOR	-	Increasing
Institutions				
Social Ties – Prior Adoptions by Interlocked Firms	H7a/b/c	TOT / PP / ESOR	+	
	H8a	TOT	+	Increasing
	H8b	PP	null	Stable
	H8c	ESOR	-	Decreasing
Prestigious Endorsement – Prior Adoptions by Large Firms or Profitable Firms	H9a/b/c	TOT / PP / ESOR	+	
	H10a	TOT	+	Increasing
	H10b	PP	null	Stable
	H10c	ESOR	-	Decreasing

Table 2: Variables, Measures, and Sources.

Note: All variables are time-varying and updated annually unless otherwise stated.

VARIABLE	**MEASURE**	**SOURCE**
Dependent Variable		
Organizational Adoption	Dichotomous variable indicating whether a practice was adopted (1 = Yes, 0 = No).	
	(I) Tender Offer Takeovers	*Securities Data Corporation (SDC) Platinum (Mergers & Acquisitions), Austin Tender Offer Statistics* (ATOS)
	(II) Poison Pills	*Securities Data Corporation (SDC) Platinum (Corporate Governance)*
	(III) Executive Stock Option Repricing	*Standard and Poor's EXECUCOMP*

VARIABLE	MEASURE	SOURCE
Independent Variables		
Managerial Power	(A) CEO Tenure – count of the number of years the CEO has served at the beginning of each year. (B) CEO/Board Chair Duality – Dichotomous variable indicating whether a CEO is also the board chair (1 = Yes, 0 = No). (C) Number of Outside Directors Appointed After CEO – count of the number of outside directors appointed after the CEO at the beginning of each year. (D) Proportion of Inside Directors – proportion of inside directors on the board of directors at the beginning of each year.	*Company Proxy Statements*.
Managerial Stock Ownership	CEO Stock Ownership – proportion of outstanding voting shares owned by the firm's CEO in the previous year.	*Company Proxy Statements, COMPUSTAT*.

VARIABLE	MEASURE	SOURCE
Institutional Shareholders' Ownership	Proportion of outstanding voting shares owned by institutional shareholders in the previous year.	*Thomson Financials.*
Social Ties	Number of Prior Adoptions by Interlocked Firms – count of the number of prior adoptions by interlock firms created through sent and received ties among the F500 firms in the previous 3 years. Interlock data will be collected at time intervals of 5 years (i.e., 1980, 1985, 1990, 1995, 2000, and 2004). Prior adoption data will be collected annually using these interlocks.	*Company Proxy Statements* *Securities Data Corporation (SDC) Platinum (Mergers & Acquisitions), Austin Tender Offer Statistics (ATOS)* *Securities Data Corporation (SDC) Platinum (Corporate Governance)* *Standard and Poor's EXECUCOMP*

VARIABLE	MEASURE	SOURCE
Prestigious Endorsement	(A) Prior Adoptions by the Largest F500 Firms – count of the number of prior adoptions by the top quartile of the largest F500 firms in terms of revenue at the beginning of each year. (B) Prior Adoptions by High Performance F500 Firms – count of the number of prior adoptions by the top quartile of the most profitable F500 firms at the beginning of each year.	*COMPUSTAT* *Securities Data Corporation (SDC)Platinum (Mergers & Acquisitions), Austin Tender Offer Statistics (ATOS)* *Securities Data Corporation (SDC)Platinum (Corporate Governance)* *Standard and Poor's EXECUCOMP*

VARIABLE	MEASURE	SOURCE
Moderator Variable Degree of Social Acceptance Over Time	Annual clock measuring the time of adoption from the first year of observation for each of the three organizational practices. (I) Tender Offer Takeovers (1980-2004) (II) Poison Pills (1984-2004) (III) Executive Stock Option Repricing (1992-2000)	
Control Variables Firm Size	(A) Gross Sales Revenue – log of gross sale revenue in the previous year. (B) Number of Employees – log of count of the number of employees in the previous year.	*COMPUSTAT* *COMPUSTAT*
Firm Age	Count of the number of years since a company's original date of incorporation at the beginning of each year.	*Mergent Online, Hoovers*

VARIABLE	MEASURE	SOURCE
Firm Performance	Return on Asset – net profit after tax divided by the value of the firm's assets in the previous year adjusted for industry (using 2 digits SIC).	*COMPUSTAT*
Firm Interlock Centrality	Sum of all nonduplicated ties that a focal firm's board maintains with all other firms. Interlock centrality will be collected at time intervals of 5 years (i.e., 1980, 1985, 1990, 1995, and 2000).	*Company Proxy Statements.*
Stock Market Performance	Mid-year Dow Jones Industrial Average (Dow Jones Industrial Average)	*EconStat.*

Table 3: Summary of Models.

Dependent Variable	**Tender Offer Takeover**	**Poison Pills**	**Executive Stock Option Repricing**
Independent Variables			
Managerial Power	YES	YES	YES
Managerial Stock Ownership	YES	YES	YES
Institutional Shareholders' Ownership	YES	YES	YES
Social Ties	YES	YES	YES
Prestigious Endorsement	YES	YES	YES
Time Clock	YES	YES	YES
Managerial Power X Time Clock	YES	YES	YES
Managerial Stock Ownership X Time Clock	YES	YES	YES
Institutional Shareholders' Ownership X Time Clock	YES	YES	YES
Social Ties X Time Clock	YES	YES	NO
Prestigious Endorsement X Time Clock	YES	YES	YES
Control Variables			
Firm Size - Employees	YES	YES	YES
Firm Age	YES	YES	YES
Firm Performance – Industry-adjusted ROA	YES	YES	YES
Firm Interlock Centrality	YES	YES	YES
Firm Debt-to-Equity	YES	YES	YES
Stock Market Performance -Dow Jones Industrial Average	YES	YES	YES
Firm Acquisition Experience	YES	NO	NO

Table 4: Descriptive Statistics and Correlations for Tender Offer Takeovers (N=3994) *.

Variable		Mean	S.D.	Min.	Max.	1	2
1	Adoption (0=no, 1=yes)	0.037	0.188	0	1		
2	Firm size (Employee)	28.764	47.935	0.027	748	.064	
3	Firm age	51.470	30.741	1	195	.017	.053
4	Firm performance (Industry-adjusted ROA)	-0.035	0.233	-5.547	0.831	.041	.126
5	Firm LT debt	0.215	0.185	0	1.748	-.009	-.066
6	Centrality (Degree)	21.167	14.557	1	105	.062	.372
7	Acquisition Experience (prior 3 yrs)	2.610	4.516	0	93	.037	.088
8	Stock Market Performance (DJIA)	4262.487	3344.544	812	10972	.026	.029
9	Time clock	12.221	6.660	2	25	.013	.002
10	CEO Power (z-scores)	-1.12E-08	2.429	-5.528	11.527	-.022	-.013
11	CEO ownership	0.042	0.103	0	0.756	-.022	-.128
12	Institutional ownership	0.483	0.204	0.001	0.989	.023	.118
13	Prior adoptions by interlocked firms (prior 3 years)	0.860	1.507	0	14	.066	.072
14	Prior adoptions by large firms (prior 3 years)	17.356	7.791	0	31	.027	.037
15	Prior adoptions by profitable firms (prior 3 years)	8.601	6.074	0	21	.023	.027
16	CEO Power x time clock	-2.528	15.891	-105.618	80.312	.000	-.016
17	CEO ownership x time clock	-0.051	0.597	-5.835	3.349	-.001	.035
18	Institutional ownership x time clock	0.440	1.367	-5.800	6.532	.024	-.017
19	Prior adoptions by interlocked firms x time clock	0.464	10.101	-91.881	115.476	.068	.081
20	Prior adoptions by large firms x time clock	23.116	57.044	-39.094	146.959	-.014	.086
21	Prior adoptions by profitable firms x time clock	34.643	38.457	-18.308	121.093	.010	.090

Variable		3	4	5	6	7	8
4	Firm performance (Industry-adjusted ROA)	.104					
5	Firm LT debt	-.005	-.057				
6	Centrality (Degree)	.190	.204	-.016			
7	Acquisition Experience (prior 3 yrs)	-.035	.084	.049	.093		
8	Stock Market Performance (DJIA)	.098	.075	.137	-.063	.229	
9	Time clock	.096	.083	.138	-.082	.239	.928
10	CEO Power (z-scores)	-.129	-.039	-.045	-.061	.008	-.157
11	CEO ownership	-.254	-.245	.093	-.250	-.047	-.089
12	Institutional ownership	.068	.231	-.073	.173	.126	.300
13	Prior adoptions by interlocked firms (prior 3 years)	.065	.046	-.022	.121	.060	.050
14	Prior adoptions by large firms (prior 3 years)	.060	.030	.056	-.023	.154	.509
15	Prior adoptions by profitable firms (prior 3 years)	.091	.066	.129	-.051	.227	.936
16	CEO Power x time clock	-.035	.021	-.053	-.007	.021	-.112
17	CEO ownership x time clock	.022	.196	.009	.114	.042	-.091
18	Institutional ownership x time clock	-.058	-.091	.070	-.085	-.020	.145
19	Prior adoptions by interlocked firms x time clock	.046	-.027	.037	.027	-.009	.024
20	Prior adoptions by large firms x time clock	.045	.003	.022	-.002	-.025	.354
21	Prior adoptions by profitable firms x time clock	.063	.017	.048	.002	.037	.570

* Correlations greater than .03 are significant at the .05 level

Variable		9	10	11	12	13	14
10	CEO Power (z-scores)	-.156					
11	CEO ownership	-.074	.268				
12	Institutional ownership	.323	-.121	-.311			
13	Prior adoptions by interlocked firms (prior 3 years)	.046	.009	-.029	.146		
14	Prior adoptions by large firms (prior 3 years)	.446	-.061	-.057	.196	.126	
15	Prior adoptions by profitable firms (prior 3 years)	.857	-.137	-.072	.278	.081	.630
16	CEO Power x time clock	-.095	-.045	-.027	.029	-.004	-.090
17	CEO ownership x time clock	-.080	-.030	-.375	.092	.021	-.069
18	Institutional ownership x time clock	.077	.024	.077	.044	-.023	.043
19	Prior adoptions by interlocked firms x time clock	-.013	-.006	.017	-.019	.090	-.032
20	Prior adoptions by large firms x time clock	.143	-.081	-.054	.028	-.036	.197
21	Prior adoptions by profitable firms x time clock	.314	-.106	-.080	.094	-.002	.341

Variable		15	16	17	18	19	20
16	CEO Power x time clock	-.103					
17	CEO ownership x time clock	-.088	.253				
18	Institutional ownership x time clock	.113	-.171	-.297			
19	Prior adoptions by interlocked firms x time clock	.013	.030	-.028	.157		
20	Prior adoptions by large firms x time clock	.295	-.132	-.088	.324	.150	
21	Prior adoptions by profitable firms x time clock	.526	-.148	-.096	.320	.123	.892

* Correlations greater than .03 are significant at the .05 level

Table 5: Descriptive Statistics and Correlations for Poison Pills (N=3241) *.

Variable		Mean	S.D.	Min.	Max.	1	2
1	Adoption (0=no, 1=yes)	0.045	0.207	0	1		
2	Firm size (Employee)	40.227	88.355	0.115	877	-.040	
3	Firm age	52.908	33.077	1	164	.000	.113
4	Firm performance (Industry-adjusted ROA)	-0.059	0.441	-18.608	0.831	.018	.082
5	Firm LT debt	0.220	0.188	0	1.748	-.004	-.081
6	Centrality (Degree)	19.876	12.350	1	77	.022	.242
7	Stock Market Performance (DJIA)	5193.703	3287.842	1335	10972	.018	.080
8	Time clock	10.618	5.511	2	21	-.029	.077
9	CEO Power (z-scores)	-2.62E-08	2.364	-5.669	7.787	-.031	-.017
10	CEO ownership	0.054	0.120	0	0.985	-.037	-.122
11	Institutional ownership	0.478	0.215	5.91E-07	0.985	.070	.099
12	Prior adoptions by interlocked firms (prior 3 years)	0.906	2.026	0	19	.053	.132
13	Prior adoptions by large firms (prior 3 years)	11.135	13.507	0	44	.034	-.025
14	Prior adoptions by profitable firms (prior 3 years)	10.232	11.868	0	35	.007	-.025
15	CEO Power x time clock	-1.248	13.368	-56.285	75.100	.020	.020
16	CEO ownership x time clock	-0.045	0.642	-6.730	5.937	.040	.006
17	Institutional ownership x time clock	0.315	1.169	-4.964	4.954	-.048	.062
18	Prior adoptions by interlocked firms x time clock	-2.317	10.111	-101.776	38.126	-.067	-.110
19	Prior adoptions by large firms x time clock	-2.930	4.438	-11.707	6.472	-.039	-.023
20	Prior adoptions by profitable firms x time clock	0.730	5.322	-6.441	14.046	.090	-.027

Variable		3	4	5	6	7	8
4	Firm performance (Industry-adjusted ROA)	.086					
5	Firm LT debt	.071	-.033				
6	Centrality (Degree)	.292	.150	.015			
7	Stock Market Performance (DJIA)	.086	.027	.048	.027		
8	Time clock	.085	.028	.055	.006	.928	
9	CEO Power (z-scores)	-.143	-.034	-.075	-.155	-.095	-.096
10	CEO ownership	-.227	-.181	.012	-.333	-.074	-.069
11	Institutional ownership	.018	.180	-.071	.177	.263	.266
12	Prior adoptions by interlocked firms (prior 3 years)	.114	.058	-.045	.335	-.190	-.208
13	Prior adoptions by large firms (prior 3 years)	-.036	-.039	-.022	-.019	-.484	-.532
14	Prior adoptions by profitable firms (prior 3 years)	-.038	-.035	-.004	-.035	-.446	-.441
15	CEO Power x time clock	-.004	.052	-.038	.038	-.056	-.055
16	CEO ownership x time clock	.032	.087	-.092	.106	-.046	-.044
17	Institutional ownership x time clock	.000	-.040	.083	-.060	.119	.105
18	Prior adoptions by interlocked firms x time clock	-.074	-.043	.038	-.268	-.055	-.055
19	Prior adoptions by large firms x time clock	-.018	.015	-.002	.007	-.117	-.086
20	Prior adoptions by profitable firms x time clock	-.030	.005	-.048	.032	-.278	-.466

* Correlations greater than .035 are significant at the .05 level

Variable		9	10	11	12	13	14
10	CEO ownership	.363					
11	Institutional ownership	-.064	-.306				
12	Prior adoptions by interlocked firms (prior 3 years)	-.029	-.116	.026			
13	Prior adoptions by large firms (prior 3 years)	.052	.045	-.154	.432		
14	Prior adoptions by profitable firms (prior 3 years)	.048	.046	-.154	.409	.924	
15	CEO Power x time clock	.039	-.037	.029	.037	.006	.016
16	CEO ownership x time clock	-.039	-.277	.060	.089	-.001	.003
17	Institutional ownership x time clock	.031	.060	.083	-.081	-.021	-.048
18	Prior adoptions by interlocked firms x time clock	.042	.095	-.088	-.664	-.302	-.271
19	Prior adoptions by large firms x time clock	.007	-.002	-.026	-.340	-.740	-.627
20	Prior adoptions by profitable firms x time clock	.031	.011	-.078	.020	.125	-.179

Variable		15	16	17	18	19
16	CEO ownership x time clock	.352				
17	Institutional ownership x time clock	-.100	-.318			
18	Prior adoptions by interlocked firms x time clock	-.052	-.104	.082		
19	Prior adoptions by large firms x time clock	.037	.029	-.054	.422	
20	Prior adoptions by profitable firms x time clock	.007	.014	-.023	.041	-.020

* Correlations greater than .035 are significant at the .05 level

Table 6: Descriptive Statistics and Correlations for Executive Stock Option Repricing (N=769) *.

Variable		Mean	S.D.	Min.	Max.	1	2
1	Adoption (0=no, 1=yes)	0.062	0.242	0	1		
2	Firm size (Employee)	26.409	37.471	0.209	260	-.098	
3	Firm age	49.199	29.959	2	121	-.121	.050
4	Firm performance (Industry-adjusted ROA)	-0.003	0.115	-0.848	0.766	-.033	.168
5	Firm LT debt	0.230	0.197	0	1.692	.102	-.099
6	Centrality (Degree)	19.114	12.664	1	59	-.101	.391
7	Stock Market Performance (DJIA)	5923.466	2793.106	2911.67	10972	.022	.219
8	Time clock	4.511	2.485	1	9	.038	.213
9	CEO Power (z-scores)	-0.242	2.243	-5.482	5.139	.056	-.133
10	CEO ownership	0.055	0.099	0	.603	.025	-.166
11	Institutional ownership	0.498	0.195	0.007	0.966	-.043	.181
12	Prior adoptions by large firms (prior 3 years)	1.593	1.719	0	5	.027	.188
13	CEO Power x time clock	-0.337	2.208	-12.038	6.761	.068	-.043
14	CEO ownership x time clock	-0.004	0.090	-0.594	1.171	-.016	-.014
15	Institutional ownership x time clock	0.059	0.183	-0.577	1.105	-.076	.028
16	Prior adoptions by large firms x time clock	-6.12E-09	0.861	-1.466	1.974	-.085	.037

Variable		3	4	5	6	7	8
4	Firm performance (Industry-adjusted ROA)	.078					
5	Firm LT debt	-.063	-.193				
6	Centrality (Degree)	.267	.193	-.025			
7	Stock Market Performance (DJIA)	.136	-.015	.072	.018		
8	Time clock	.136	-.013	.052	.185	.969	
9	CEO Power (z-scores)	-.237	-.057	-.045	-.236	-.255	-.264
10	CEO ownership	-.282	-.144	.070	-.309	-.095	-.100
11	Institutional ownership	.119	.072	-.094	.230	.459	.463
12	Prior adoptions by large firms (prior 3 years)	.122	-.019	.071	.156	.911	.845
13	CEO Power x time clock	-.008	-.025	.053	.008	-.077	-.101
14	CEO ownership x time clock	.060	.032	-.047	.089	-.006	-.009
15	Institutional ownership x time clock	.008	-.027	-.010	.008	-.003	.058
16	Prior adoptions by large firms x time clock	-.006	.022	-.008	-.051	-.127	-.126

Variable		9	10	11	12	13	14
10	CEO ownership	.334					
11	Institutional ownership	-.174	-.263				
12	Prior adoptions by large firms (prior 3 years)	-.215	-.085	.364			
13	CEO Power x time clock	.003	-.036	-.031	.010		
14	CEO ownership x time clock	-.041	-.243	.047	.011	.332	
15	Institutional ownership x time clock	-.024	.043	.007	-.129	-.199	-.263
16	Prior adoptions by large firms x time clock	.011	.012	-.141	-.082	-.265	-.109

Variable		15
16	Prior adoptions by large firms x time clock	.290

* Correlations greater than .07 are significant at the .05 level

Table 7: Event History Analysis Predicting Rate of Tender Offer Takeovers Adoption (N=3700) *.

	Model		
Independent Variables	1	2	3
Firm size (Employees)	0.272 •••	0.270 •••	0.243 ••
	(0.077)	(0.078)	(0.079)
Firm age	6.43E-04	1.22E-04	-9.30E-05
	(0.003)	(0.003)	(0.003)
Firm performance (Industry-adjusted ROA)	1.488 †	1.646 †	1.887 •
	(0.899)	(0.898)	(0.915)
Firm LT debt	-0.181	-0.275	-0.379
	(0.532)	(0.540)	(0.560)
Centrality	0.147	0.143	0.188
	(0.135)	(0.138)	(0.140)
Acquisition Experience (prior 3 yrs)	0.005	0.006	0.008
	(0.014)	(0.014)	(0.013)
Stock market performance (DJIA)	2.32E-04 •	4.13E-04 •	3.04E-04
	1.03E-04	1.76E-04	2.18E-04
Time clock	-0.1095 †	-0.1291 •	-0.105
	(0.061)	(0.064)	(0.078)
CEO power		-0.060	-0.064 †
		(0.037)	(0.037)
CEO ownership		0.650	0.458
		(1.049)	(1.156)
Institutional ownership		-0.570	-0.637
		(0.491)	(0.502)
Prior adoptions by interlocked firms (prior 3 years)		0.115 •••	0.068
		(0.041)	(0.050)
Prior adoptions by large firms (prior 3 years)		0.010	6.32E-03
		(0.026)	(0.029)
Prior adoptions by profitable firms (prior 3 years)		-0.096	-0.090
		(0.077)	(0.078)
CEO power x time clock			-0.001
			(0.006)
CEO ownership x time clock			-0.055
			(0.202)
Institutional ownership x time clock			0.154 •
			(0.077)
Prior adoptions by interlocked firms x time clock			0.014 •
			(0.007)
Prior adoptions by large firms x time clock			-0.003
			(0.007)
Prior adoptions by profitable firms x time clock			0.007
			(0.012)
Chi-square	41.77 •••	53.32 •••	65.87 •••

† ρ ≤ .1; • ρ ≤ .05; •• ρ ≤ .01; ••• ρ ≤ .001; two-tailed tests.
* Standard errors are in parentheses.

Table 8: Event History Analysis Predicting Rate of Poison Pills Adoption (N=2954)*.

	Model		
Independent Variables	1	2	3
Firm size (Employees)	-0.079	-0.127 †	-0.125 †
	(0.067)	(0.069)	(0.070)
Firm age	6.21E-04	1.41E-03	1.56E-03
	(0.003)	(0.003)	(0.003)
Firm performance (Industry-adjusted ROA)	0.586	0.211	0.221
	(0.492)	(0.469)	(0.474)
Firm LT debt	-0.098	0.038	0.170
	(0.475)	(0.477)	(0.482)
Centrality	0.194	0.009	-0.019
	(0.129)	(0.142)	(0.142)
Stock market performance (DJIA)	5.33E-04 •••	5.20E-04 •••	5.51E-04 •••
	9.25E-05	9.79E-05	1.31E-04
Time clock	-0.284 •••	-0.268 •••	-0.254 •
	(0.066)	(0.075)	(0.117)
CEO power		-0.058	-0.053
		(0.040)	(0.040)
CEO ownership		-0.624	-0.615
		(1.120)	(1.169)
Institutional ownership		1.830 •••	1.807 •••
		(0.458)	(0.455)
Prior adoptions by interlocked firms (prior 3 years)		0.068 †	0.006
		(0.038)	(0.072)
Prior adoptions by large firms (prior 3 years)		0.041	0.383
		(0.166)	(0.502)
Prior adoptions by profitable firms (prior 3 years)		-0.004	-0.118
		(0.149)	(0.270)
CEO power x time clock			8.78E-05
			(0.007)
CEO ownership x time clock			0.202
			(0.201)
Institutional ownership x time clock			-0.098
			(0.076)
Prior adoptions by interlocked firms x time clock			-0.013
			(0.013)
Prior adoptions by large firms x time clock			0.074
			(0.100)
Prior adoptions by profitable firms x time clock			-0.017
			(0.061)
Chi-square	40.83 •••	66.32 •••	72.01 •••

† ρ ≤ .1; • ρ ≤ .05; •• ρ ≤ .01; ••• ρ ≤ .001; two-tailed tests.

* Standard errors are in parentheses.

Table 9: Event History Analysis Predicting Rate of Executive Stock Option Repricing Adoption (N=655)*.

	Model		
Independent Variables	1	2	3
Firm size (Employees)	-0.157	-0.152	-0.168
	(0.132)	(0.133)	(0.137)
Firm age	-0.017 ••	-0.017 ••	-0.019 ••
	(0.006)	(0.006)	(0.007)
Firm performance (Industry-adjusted ROA)	0.622	0.457	0.349
	(1.328)	(1.314)	(1.339)
Firm LT debt	1.317 •	1.474 •	1.333 •
	(0.590)	(0.664)	(0.670)
Centrality	-0.211	-0.243	-0.216
	(0.205)	(0.218)	(0.222)
Stock market performance (DJIA)	0.368	0.326	-0.471
	(0.329)	(0.328)	(0.969)
Time clock	-0.183	-0.128	-1.578
	(0.402)	(0.417)	(1.533)
CEO power		0.098	0.126
		(0.079)	(0.083)
CEO ownership		-2.905	-4.358 †
		(1.902)	(2.312)
Institutional ownership		-1.118	-1.361
		(0.938)	(0.958)
Prior adoptions by large firms (prior 3 years)		0.148	-0.300
		(0.441)	(0.694)
CEO power x time clock			0.214 •
			(0.102)
CEO ownership x time clock			-5.162 •
			(2.634)
Institutional ownership x time clock			-2.782 •
			(1.247)
Prior adoptions by large firms x time clock			-2.296
			(2.682)
Chi-square	24.11 •••	28.35 ••	39.54 •••

† ρ ≤ .1; • ρ ≤ .05; •• ρ ≤ .01; ••• ρ ≤ .001; two-tailed tests.

* Standard errors are in parentheses.

Results for analysis using prior adoptions by profitable firms are not reported herein but are available from the author.

Figure 1: S-Shaped Adoption Curve.

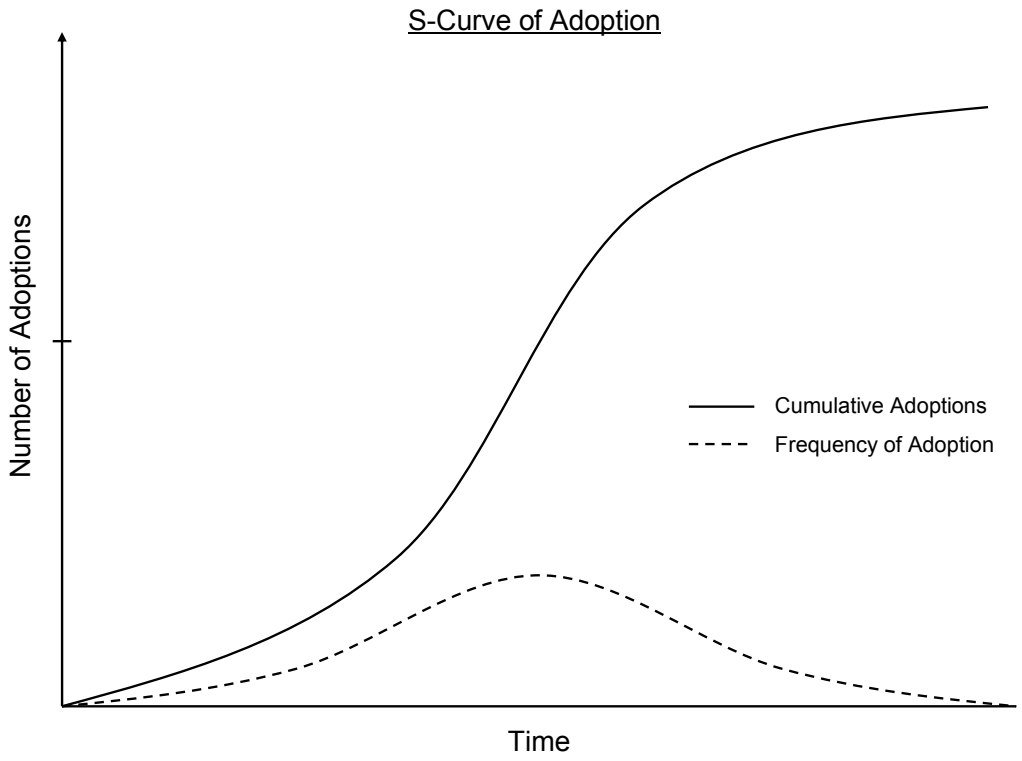


Figure 2: Frequency of F500 Tender Offer Takeovers from 1980 to 2004.

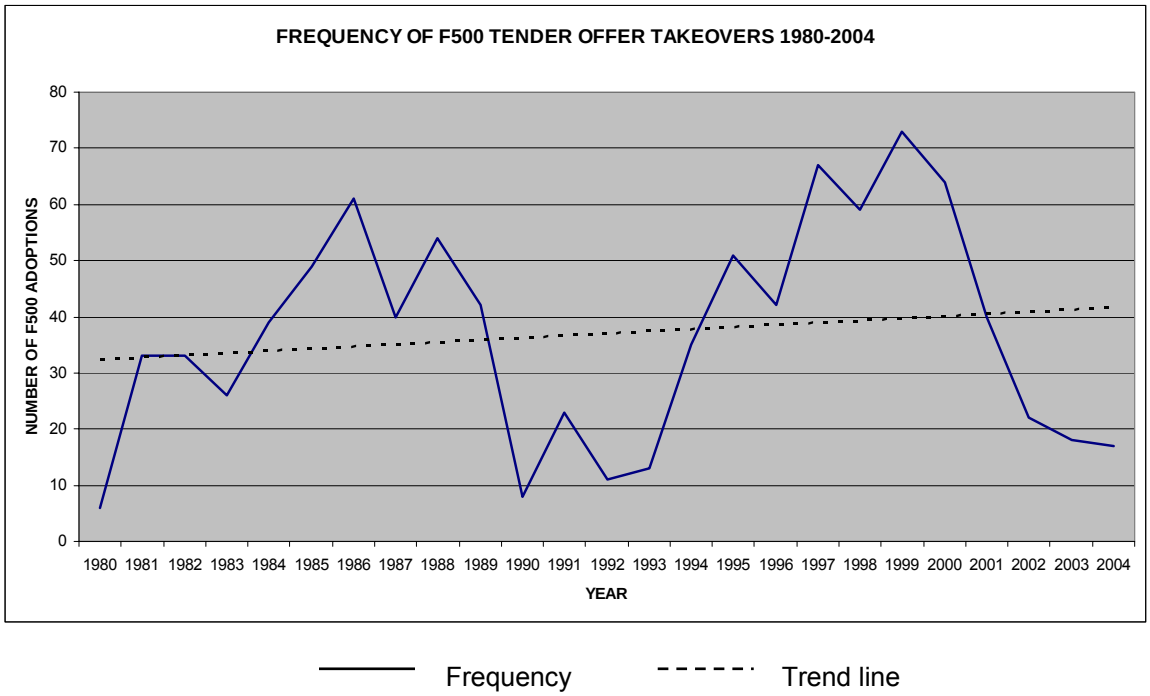


Figure 3: Cumulative F500 Tender Offer Takeovers from 1980 to 2004.

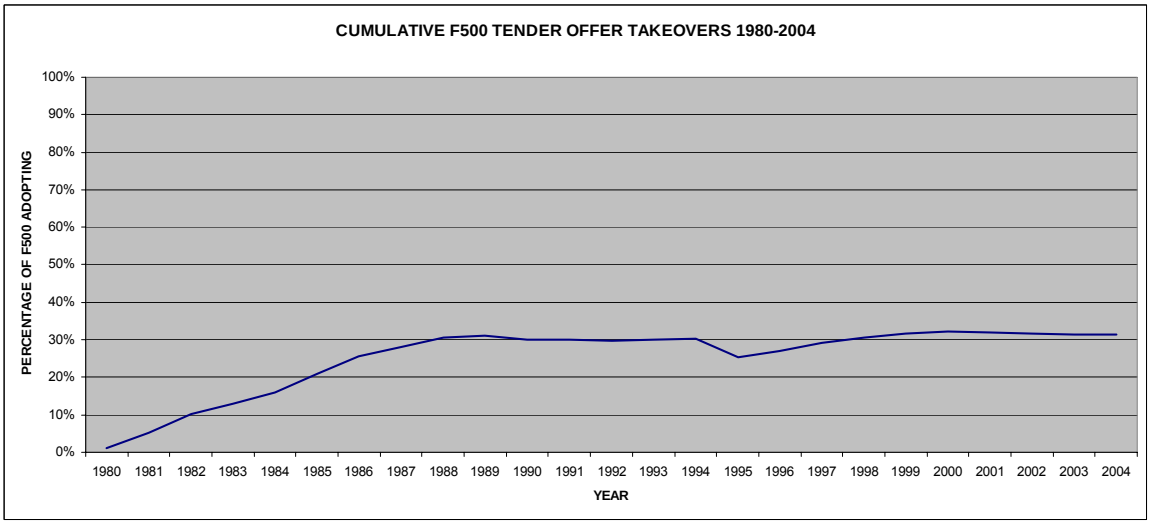


Figure 4: Frequency of F500 Poison Pills from 1984 to 2004.

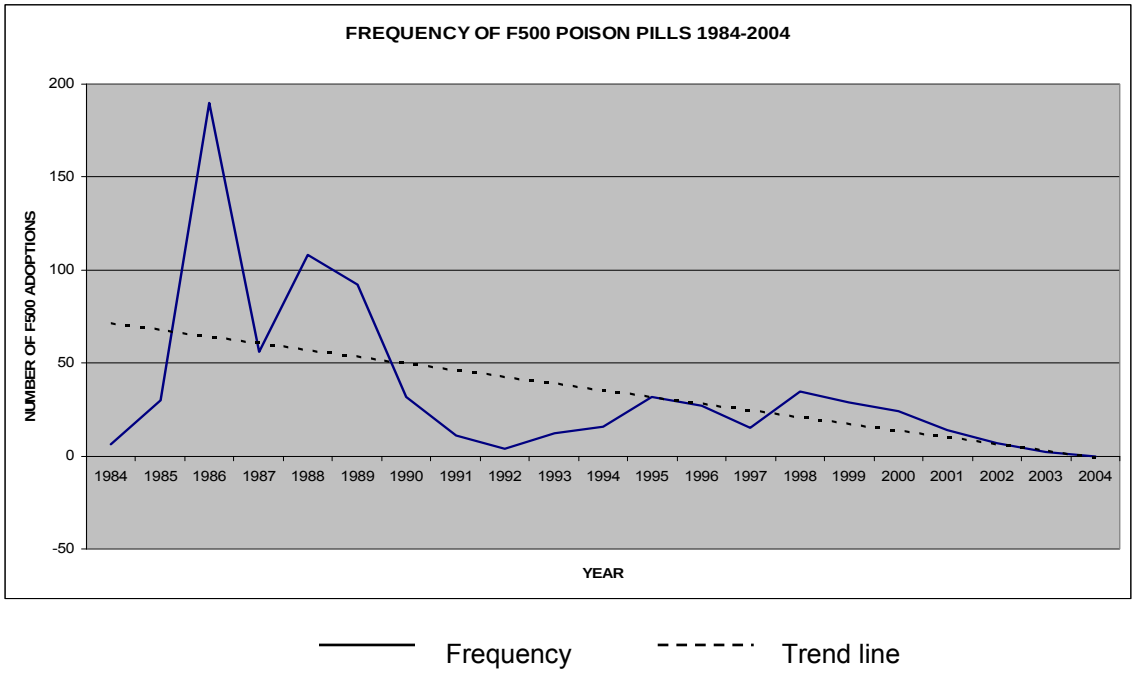


Figure 5: Cumulative F500 Poison Pills from 1984 to 2004.

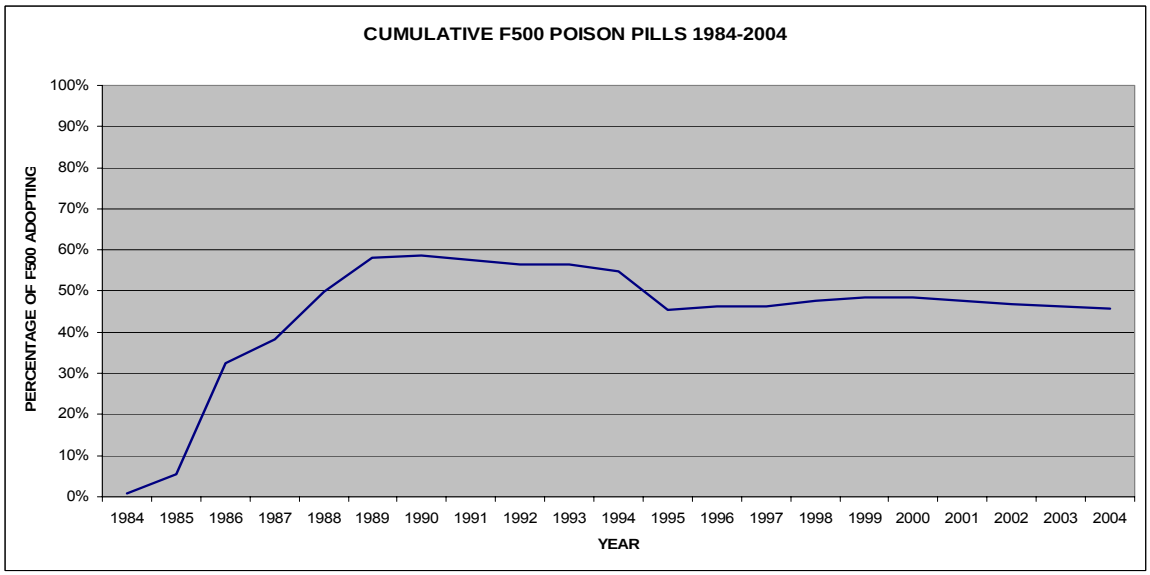


Figure 6: Frequency of F500 Executive Stock Option Repricing from 1992 to 2000.

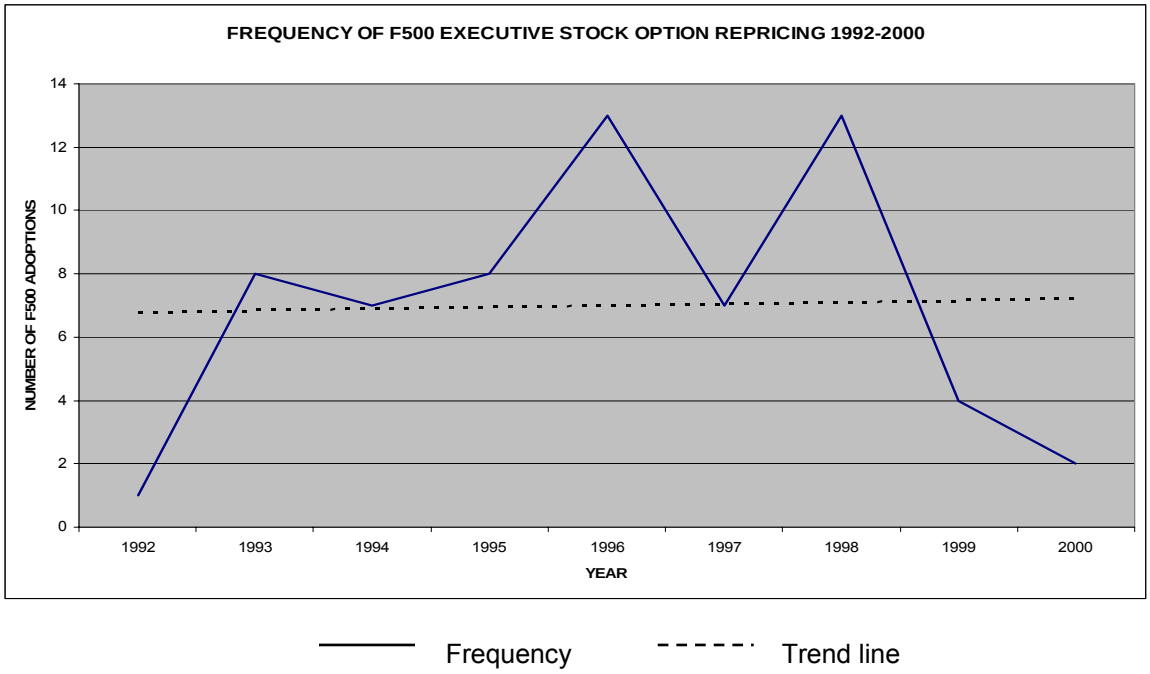


Figure 7: Cumulative F500 Executive Stock Option Repricing from 1992 to 2000.

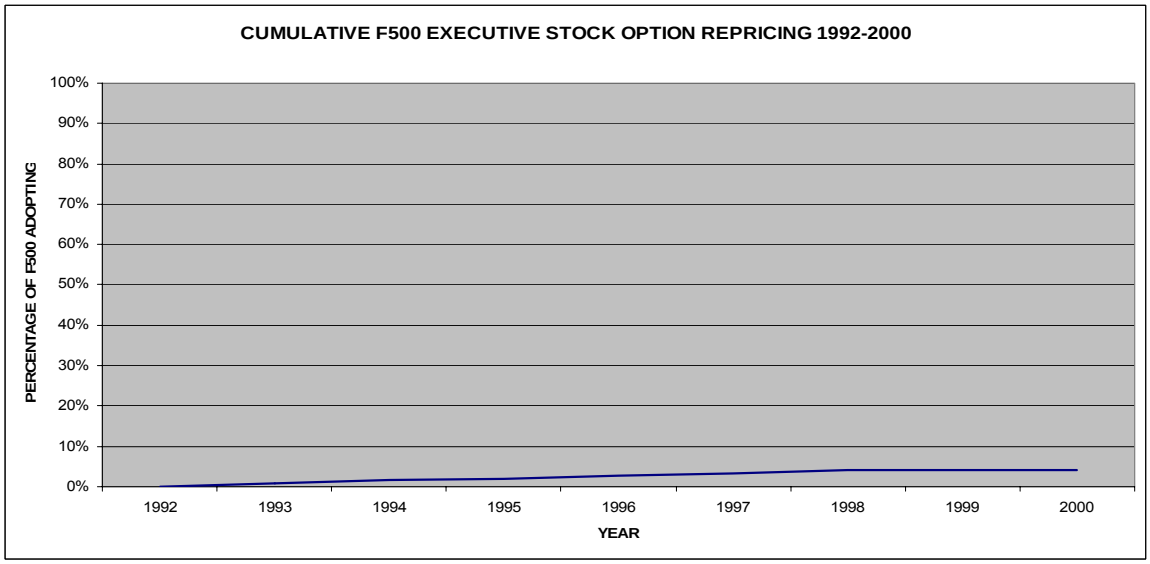
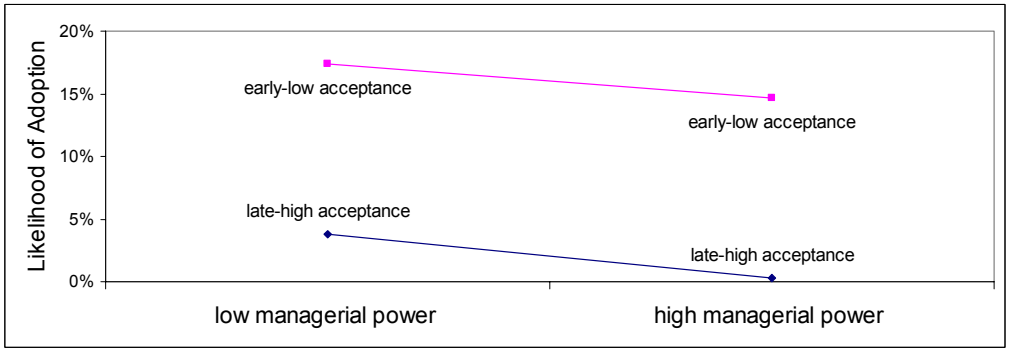


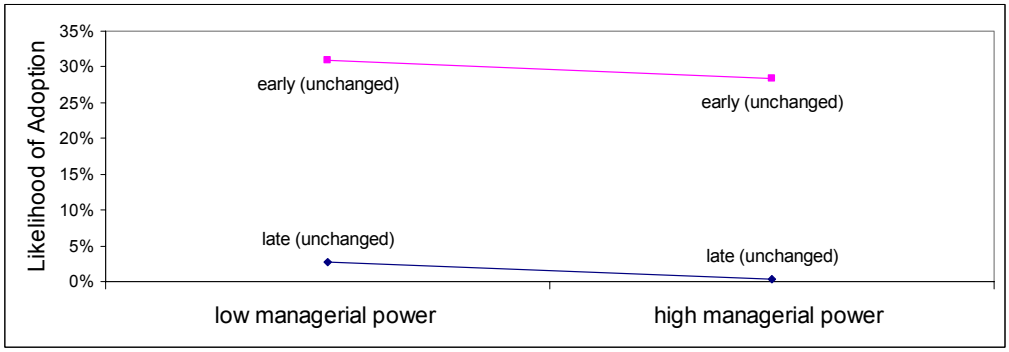
Figure 8: Interaction Graphs for Managerial Power.

(Interaction graphs are plotted using respective means ± 1 S.D.)

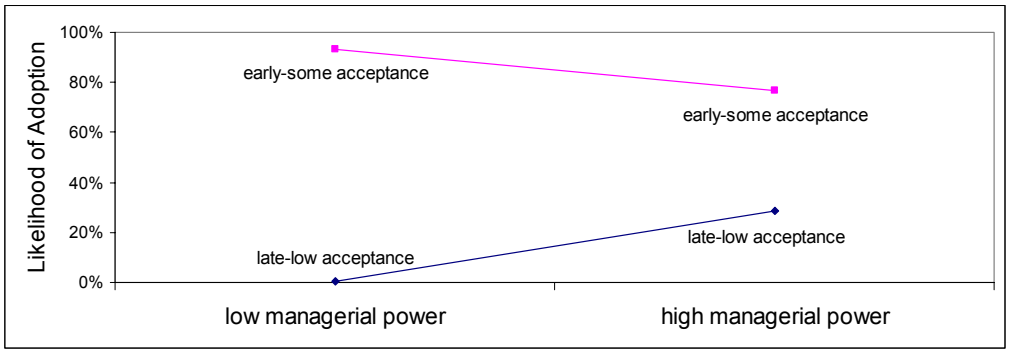
a: Tender Offer Takeovers



b: Poison Pills



c: Executive Stock Option Repricing •

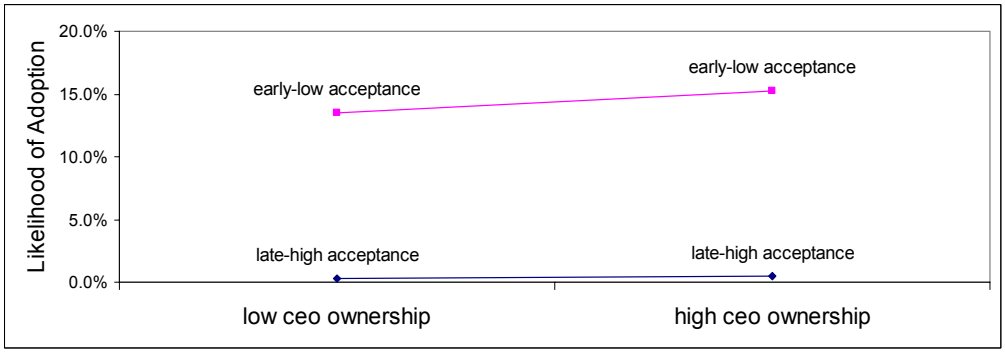


† ρ ≤ .1; • ρ ≤ .05; •• ρ ≤ .01; ••• ρ ≤ .01

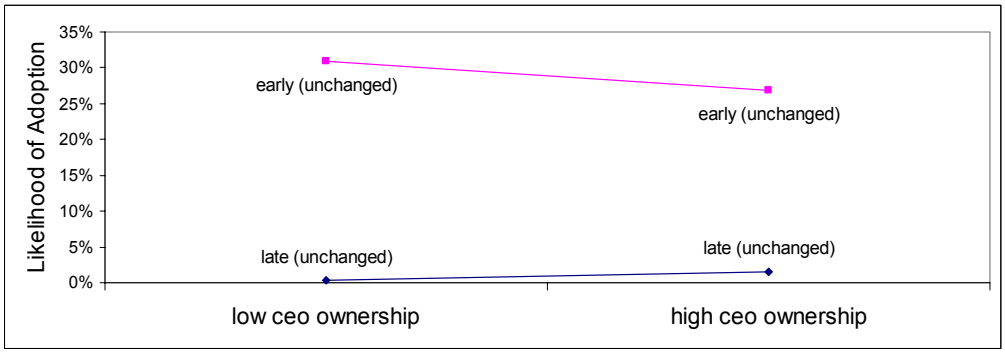
Figure 9: Interaction Graphs for Managerial Incentives.

(Interaction graphs are plotted using respective means ± 1 S.D.)

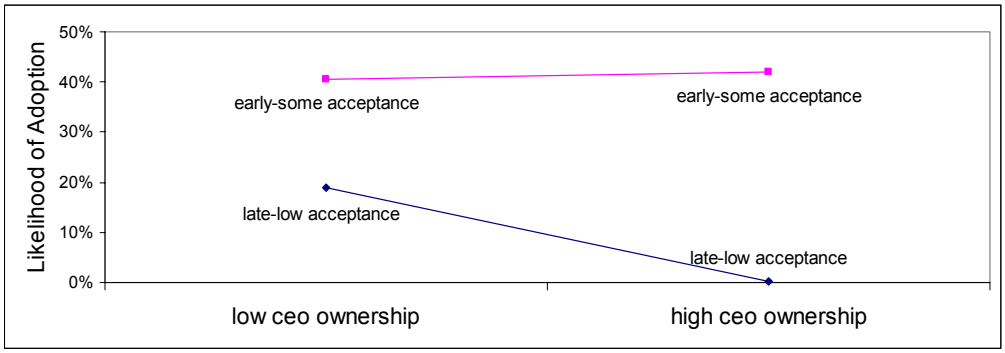
a: Tender Offer Takeovers



b: Poison Pills



c: Executive Stock Option Repricing •

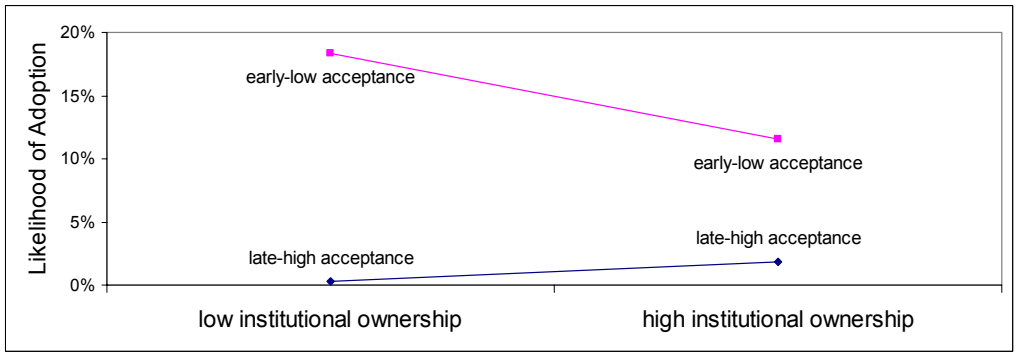


† ρ ≤ .1; • ρ ≤ .05; •• ρ ≤ .01; ••• ρ ≤ .01

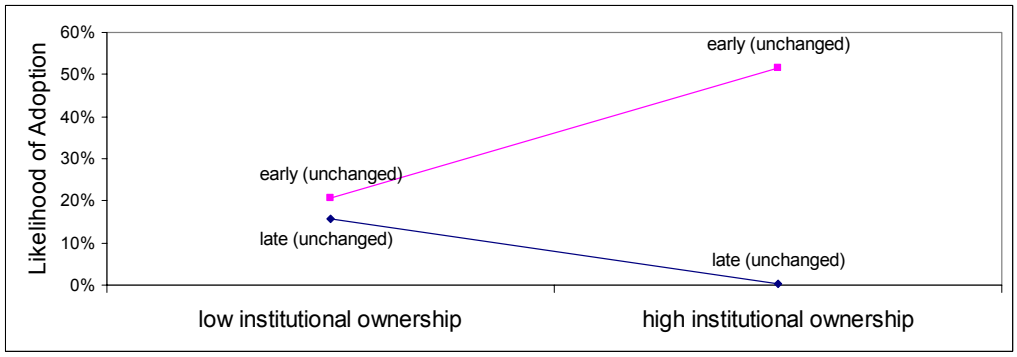
Figure 10: Interaction Graphs for Institutional Shareholders' Influence.

(Interaction graphs are plotted using respective means ± 1 S.D.)

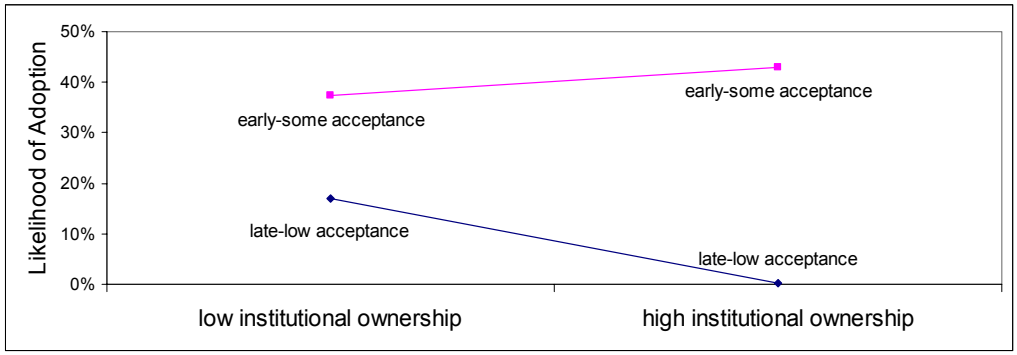
a: Tender Offer Takeovers



b: Poison Pills



c: Executive Stock Option Repricing •

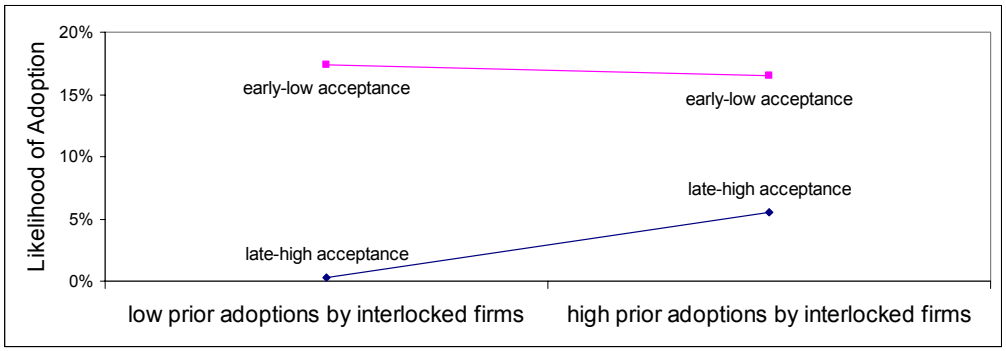


† ρ ≤ .1; • ρ ≤ .05; •• ρ ≤ .01; ••• ρ ≤ .01

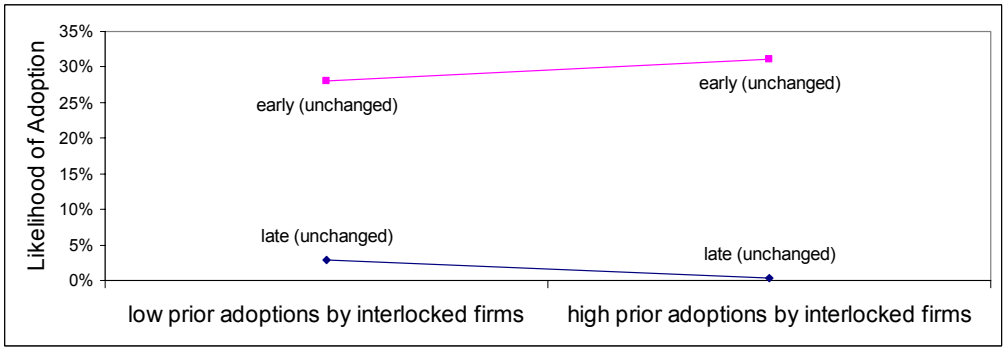
Figure 11: Interaction Graphs for Social Ties.

(Interaction graphs are plotted using respective means ± 1 S.D.)

a: Tender Offer Takeovers



b: Poison Pills



c: Executive Stock Option Repricing •

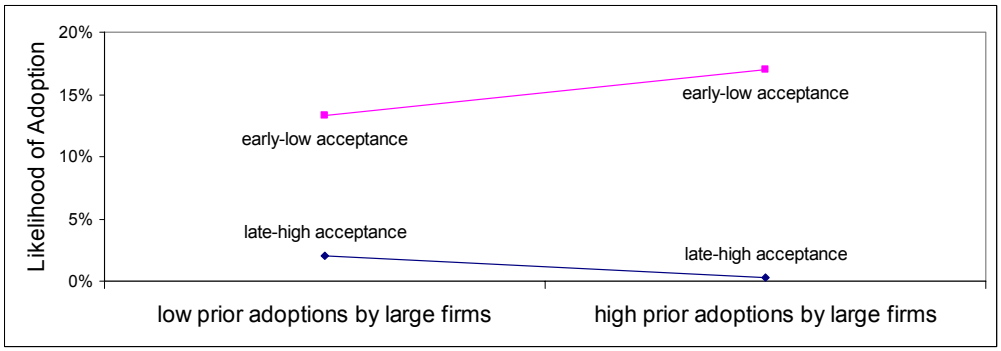
Dropped because of data limitation.

† ρ ≤ .1; • ρ ≤ .05; •• ρ ≤ .01; ••• ρ ≤ .01

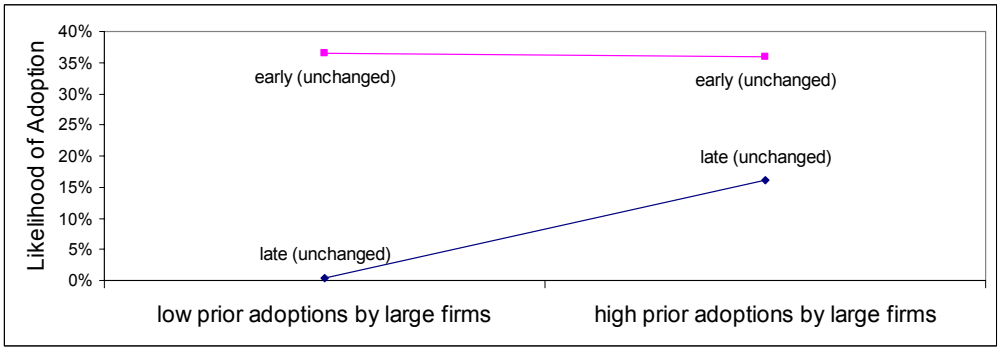
Figure 12: Interaction Graphs for Prestigious Endorsement - Size.

(Interaction graphs are plotted using respective means ± 1 S.D.)

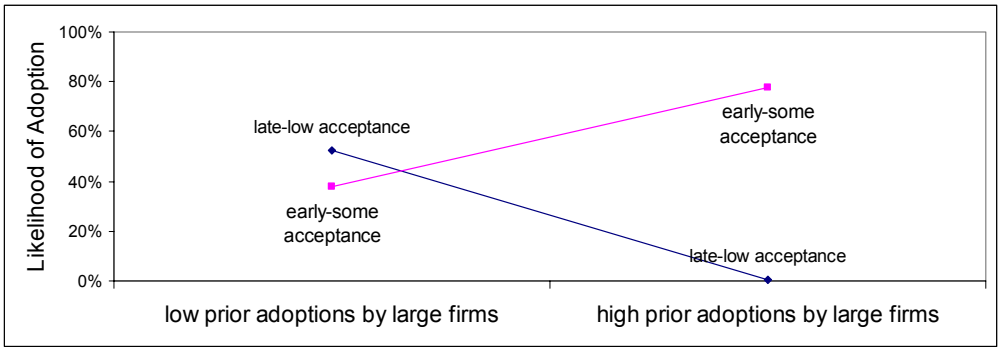
a: Tender Offer Takeovers



b: Poison Pills



c: Executive Stock Option Repricing •

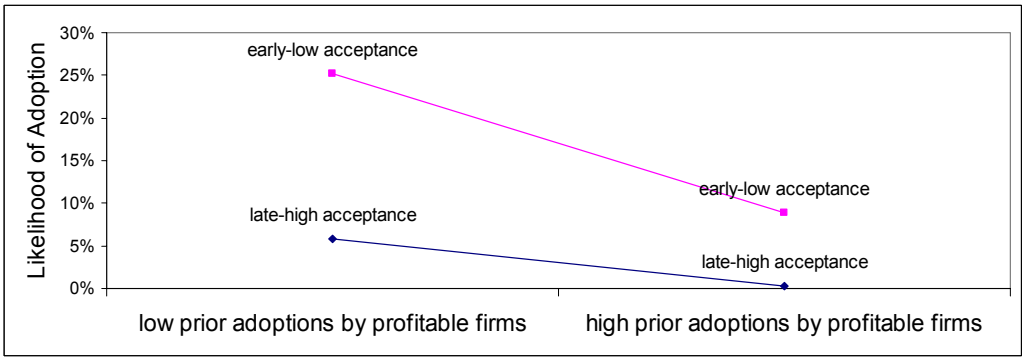


† ρ ≤ .1; • ρ ≤ .05; •• ρ ≤ .01; ••• ρ ≤ .01

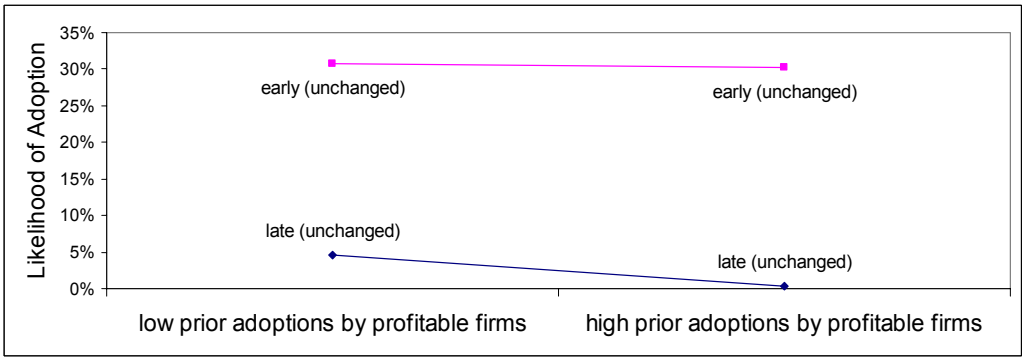
Figure 13: Interaction Graphs for Prestigious Endorsement - Profitability.

(Interaction graphs are plotted using respective means ± 1 S.D.)

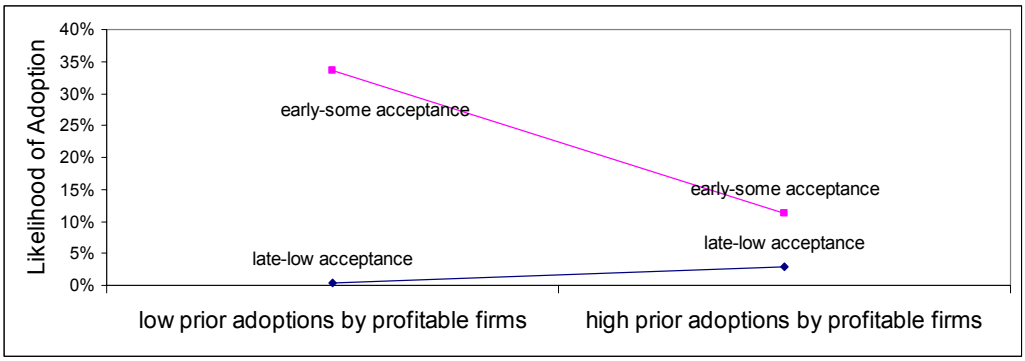
a: Tender Offer Takeovers



b: Poison Pills



c: Executive Stock Option Repricing •



† ρ ≤ .1; • ρ ≤ .05; •• ρ ≤ .01; ••• ρ ≤ .01

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Vita

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